AP STATISTICS
2019 Summer Assignment

PART I   Statistical Terms

Write a 1 – 2 sentence definition *and* give an example for each of the following vocabulary terms. It is recommended that you use online sources to help write these definition, but they can not just be copied, they must be re-written in your own words. Please make sure that all definitions pertain to statistics for example with symmetry I don't want a geometry definition. Please type each of your definitions and examples in an organized manner and include a list of the sources that you used to help you. There will be a quiz on these terms on the second day of class.

1. Mean
2. Median
3. Mode
4. Range
5. Categorical Variables
6. Quantitative Variables
7. Univariate Data
8. Bivariate Data
9. Population
10. Sample
11. Unimodal
12. Bimodal
13. Observational Study versus Experimental
14. Simple Random Sampling
15. Outlier
16. Center
17. Spread
18. Symmetry
19. Bar Chart versus Histogram
20. Dot Plots
21. Stem Plots
22. Box Plots
23. Quartiles
24. Interquartile Range (IQR)
25. Skewness (Differentiate between Skewed Left and Skewed Right)

PART II   Reading about Statistics

There are many good books that involve statistical ideas without getting too technical. This summer, you must read the following book:

How to Lie With Statistics by Darrell Huff
ISBN-13: 978-0393310726
Available at Amazon.com for $6 to $12

PART III   Writing about Statistics

After reading *How to Lie With Statistics*, you will write a 2 – 3 page reflection paper about the book. The paper should be double-spaced in 12-point Times New Roman Font with 1-inch margins. Your reflection paper should include:

i. A brief summary of the book
ii. A specific statistical fact or connection discussed in the book that you found interesting and why
iii. An advertisement or article that you believe may be using statistics to lie. Explain why you think the advertisement or article is lying, based on what you learned from the book. Attach the advertisement or article to your final paper.

AP STATISTICS
Approved Calculators

On the day of the AP Exam, each student is expected to bring to the exam a graphing calculator with statistical capabilities. The computational capabilities should include standard statistical univariate and bivariate summaries through linear regression. The graphical capabilities should include common univariate and bivariate displays such as histograms, boxplots, and scatterplots. You can bring two calculators to the exam.

During the exam, you can't use minicomputers, pocket organizers, electronic writing pads, or calculators with QWERTY (i.e., typewriter) keyboards.

To become comfortable with using a calculator with all of these functions, an approved graphing calculator should be purchased prior to the 2017 – 2018 school year. See list below provided by the College Board:

Texas Instruments	Hewlett-Packard	Casio
TI-82	HP-28 series	FX-9700 series
TI-83/TI-83 Plus	HP-38G	FX-9750 series
TI-83 Plus Silver	HP-39 series	FX-9860 series
TI-84 Plus	HP-40 series	CFX-9800 series
TI-84 Plus CE	HP-48 series	CFX-9850 series
TI-84 Plus Silver	HP-49 series	CFX-9950 series
TI-84 Plus C Silver	HP-50 series	CFX-9970 series
TI-85	HP Prime	FX 1.0 series
TI-86		Algebra FX 2.0
TI-89	**Sharp**	series
TI-89 Titanium	EL-9200 series	FX-CG-10 (PRIZM)
TI-Nspire	EL-9300 series	FX-CG-20
TI-Nspire CX	EL-9900 series	
TI-Nspire CM-C		
TI-Nspire CAS		
TI-Nspire CX CAS		
TI-Nspire CM-C CAS		
TI-Nspire CX-C CAS		

While all of these calculators are approved for the AP Statistics Exam, it is highly recommended to purchase a **TI-84 Plus CE** (or another **TI-84** calculator edition). The staff at SHS uses **TI-84** calculators to teach the content of AP Statistics. The advantage of purchasing a **TI-84 Plus CE,** as opposed to other editions, is the color graphics that will appear within charts and graphs. TI-83 calculators have limited function with some Statistical tests.