AP Statistics Summer Work 2020                    Name: _____

Read **Overview: What is Statistics?** and complete the following by filling in the blanks and answering the questions. You may also write your responses on your own paper, but please label all questions. This assignment is due the first day of school next year but will not be given a grade. Please email me at morgan.vicki@mail.fcboe.org if you have any questions.

**Read Page 1**

1. As you read the first paragraph, I want you to start to look for evidence of statistics in the world around you. Provide one example of a study which utilized statistics. This can be a study that you have read about, heard on the news, seen on twitter, etc. **Write three to four sentences describing the study, including the question that was being answered by the study**. Also, provide the source of the study.

2. Statistics is the _____ of learning from data. Data are usually numbers, but they are _____ numbers. Data are numbers with _____. **Find any type of statistical graph** from a newspaper or magazine (not internet) and summarize the graph. Write a short paragraph using complete sentences. **In particular, discuss the population, sample, variables, and type of graph**. Also include any interesting findings from the graph. Please **attach your graph** to this assignment.

3.  Data are more _____ than personal experiences because they _____ describe an _____ picture, rather than focus on a _____ incidents. After reading about the cell phone and brain cancer studies, **provide an example** of a personal experience (not necessarily your own) that has been refuted by a large scale study. Use complete sentences to explain the scenario.

4.  After reading the *Are You Kidding?* section, **provide an example** of when you or someone you know have provided feedback due to strong feelings about an interaction or service provided. This could be for very positive or very negative feelings. Some examples might include completing a survey questionnaire, rating a representative from 1-4, responding to an online survey, etc. Please use complete sentences.

5.  The most important information about any statistical study is how the data were _____. Only carefully _____ studies produce results that can be _____. **Provide 2-3 reasons** that a study might not be trustworthy. Please use complete sentences.

6. A carefully chosen _____ is often more _____ than a bunch of numbers. After reading the *Do People Live Longer in Wealthier Countries?* section, click on the [www.gapminder.org](www.gapminder.org) link, scroll down to Try Our Tools ~ Play with the Data and select. Explore the available data and create a graph using the website tools. **Sketch your graph** here (or print if possible and attach) and **write 3-4 sentences** to describe your graph.

7. Statistics provide a tool for understanding _____. After reading the *Have Most Students Cheated on a Test?* section, **describe variation** in your own words. Please use at least 2-3 complete sentences.

8. Because variation is _____, conclusions are uncertain. Statistics gives us a _____ for talking about uncertainty that is understood by statistically _____ people everywhere. **Our goal this year is for you to become a statistically literate person!!!!!**