

AP Statistics Summer 2023 Assignment

Denver East High School

Dear future AP Statistics student,

I hope this finds you well. Your summer assignment has two components each from a different website: arstechnica.com and stattrek.com. You should have this completed before the first day of school. **Both parts 1 and 2 should be hand-written on paper, ready to turn in on the first day of class.** Do not wait until the last minute to complete this assignment!

Part 1

Please read this article:

<https://arstechnica.com/science/2020/04/experts-demolish-studies-suggesting-covid-19-is-no-worse-than-flu/>

Define the following two terms:

- Sensitivity
- Specificity

Answer these three questions:

1. What was wrong with the recruitment strategy in the Santa Clara Study? (1-3 sentences)
2. Why was it a problem? (2 -4 sentences)
3. The author writes "The specificity estimate suggests that just 0.5 percent of tests will be false positives, but the range leaves open the possibility that up to 1.7 percent of tests are false positives. This is a big sticking point for critics." Why do you think this is a big sticking point for critics?

Part 2

Go to <https://www.stattrek.com/tutorials/ap-statistics-tutorial.aspx>

Work through the sections called "The basics" as shown circled in red below. Be sure to watch through all the videos. There are problems at the bottom of each page. Some are multiple choice, some are free-response.

You must show your work for all the problems at the bottom of each page (don't worry, answers are provided on the website).

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What Are Variables in Statistics?

In statistics, a **variable** has two defining characteristics:

- A variable is an attribute that describes a person, plac
- The value of the variable can "vary" from one entity to

For example, a person's *hair color* is a potential variable, whi and "brunette" for another.

Stat Trek presents