

Mr. Lowenkron's AP Statistics Summer Assignment

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. Do not wait until the last minute to complete this assignment! You can reach me at aaron_lowenkron@dpsk12.net over the summer. I'm excited to meet you!

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 the all the videos. **Make sure you submit your work for all the problems at the bottom of each page** (don't worry, answers are provided on the website).

AP Statistics Tutorial

Exploring Data

- ▲ The basics
 - Variables
 - Population vs sample
 - Mean and median
 - Variability
 - Position
- ▼ Charts and graphs
- ▼ Regression
- ▼ Categorical data

AP Statistics Tutorial

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About the Tutorial

This tutorial provides accurate and complete coverage Statistics curriculum and this tutorial cover the followi

- **Exploring data.** Using graphical and numerical tex graphical information and descriptive statistics.
- **Sampling and experimentation.** How to plan anc and specifying methods to collect and analyze dat
- **Anticipating patterns.** Using probability and simu probabilistic models to understand real-world ever
- **Statistical inference.** How to estimate population hypotheses.