***STA 251***

***Mini-Project #2***

***Blue Is The Fastest Color***

Guidelines: All parts of this mini-project are due by the start of class on Wednesday, October 22nd. This can either be submitted within a folder with all parts neatly organized or in one file via email. All work should be shown. Organization and presentation will factor into the grade.

Directions

You need to select a value to determine if blue makes things faster. This should be an original idea. It must be something that you can test with at least four colors (one of them blue obviously).

It will need to be approved by me before you begin. Part of the grade will be coming up with the idea. Statistics is not only about crunching the numbers, but coming up with the ideas in the first place. When you give me your idea, I will let you know if it is an A, B, C, D, or E idea. An A idea could receive 50 points, a B idea can only receive a max of 40, 35 points max for a C idea, and 30 points max for a D idea. Deductions for errors will be made from the max grade.

Write up a summary of your data collection approach. Collect your data. Take pictures of your data collections. (10 points)

Find the mean, standard deviation, and the sample sizes. Create a table of values and make a histogram for each sample. Create a running average and make a graph showing the confidence interval and your data stabilizing there for each sample. (20 points)

Perform the appropriate hypothesis test between blue and each of the other colors. Neatly write out all steps. (15 points)

This needs to be well-organized and neat. (5 points)