

Part II:

This is the presentation of your work. It should include and will be graded on the following:

1. Introduction (background, purpose,...) (5 points)
2. Calculations: (mean, median, mode, standard deviation, calculated, this is a repeat of what you already did for part one, you may need to adjust your original values for differences in serving sizes if you have not already done so) You only need to do this part for the variable(s) you are focusing on for the confidence interval(s). (5 points)
3. Construct two Normal Probability plots for one of your variables (sugar, fat, calories, carbs,...), one for each half of your data set. Discuss the normality of your data. (10 points)
4. Include the box plots you already did from part one. (5 points)
5. Construct two 95% Confidence Intervals (for the mean or proportion) for one of your variables (sugar, fat, calories, carbs.... (You have already divided the data set into 2 parts, so one for each part)
For example based on how you already divided the data sets, you might
 - a. Compare the sugar/fat/calorie content of the cereals on the top shelf with those on the bottom.
 - b. Compare the sugar/fat/calorie content of organic to non-organic
 - c. Compare “adult” cereals to “kid” cereals.(30 points)
6. Perform TWO hypothesis testing for a claim or hypothesis. What’s your hypothesis before your group chooses a product to study? Use your sample data to test whether you have enough evidence to support your claim. (20 points).
7. Discussion – Explain the results of your investigation. Discuss the implications of what you have learned, that is any similarities or differences. What do your confidence intervals tell you? Discuss the overlap or lack of in the intervals and what this means. Did you learn anything interesting? This should be in full sentences and proper paragraphs. Do not just list your results, I am looking for an explanation and discussion of the results. Indicate anything unusual or usual about your results. Find out what the recommended daily values for sugar/fat/calorie and how this applies to your study. Write conclusion such that a person with no statistical background should be able to follow your discussion. (25 points)