STAT 1   Name (Print):   _____
Fall 2020
Practice Exam Questions   Last 4 digits of SID: _____

Instructions:

- The exam will be open book and open notes. You may not receive assistance from other people, including through forums or question and answer sites.

- You are encouraged to use StatCrunch to complete this exam. See the StatCrunch page in Canvas for tutorial videos. If you prefer, you are also welcome to use Excel or another statistical software tool. You may also work by hand.

- **You must show your work on this exam!** If you are working in StatCrunch, this includes taking a screenshot of any output and pasting it into your exam document. For incorrect solutions, partial credit will be awarded for work shown.

- Your exam must be typed. Any graphs or tables should be pasted in from StatCrunch. You may submit a Word document or PDF.

- These practice questions are a sample of the kinds of questions you may see on Midterm 1. **This document is not representative of the actual length of the exam.**

For these practice problems, you will work with data on fast food. The StatCrunch link is available in Canvas. This data gives information on a sample of 126 fast food items from a variety of fast food restaurants.

1. Suppose you wanted to collect your own data on fast food items. Describe how you might get a random sample of fast food items.

2. Consider the `Type` variable.

   (a) Is this variable qualitative or quantitative?

   (b) Obtain a frequency distribution.

   (c) Find an appropriate measure of center for this variable. Explain why you chose this measure of center.

3. Consider the variable `Calories`

   (a) Create a histogram for this variable.

   (b) Find the five-number summary for this variable.

   (c) Find the IQR. Are there any outliers?

4. Consider the `Serving Size (g)` and `Calories` variables (for use in a regression).

   (a) Which variable would you use as the predictor and which as the response? Why?

   (b) Create a scatter plot for these two variables.

   (c) Find the regression equation for these variables. Interpret the slope and intercept.