Name: _____

MAT 222
Spring 2019
Minitab Lab 1

"It's my bad attitude that keeps me young."
–Nadia Lyonne, Russian Doll

The following exercise makes use of the `chicago-public-schools-data` folder. These datasets are the summarized data from the 5Essentials School report for public city schools in the city of Chicago. To begin, read more about the report in the following links:

  (i) https://consortium.uchicago.edu/surveys

 (ii) https://www.cps.edu/SCHOOLDATA/Pages/SchoolProgressReports.aspx

(iii) https://www.cps.edu/Performance/Documents/SY2011SchoolProgressReport.pdf

 (iv) http://help.5-essentials.org/customer/portal/kb_article_attachments/137690/original.pdf?1540586368

  (v) http://help.5-essentials.org/customer/portal/kb_article_attachments/137691/original.pdf?1540586381

 (vi) http://help.5-essentials.org/customer/portal/kb_article_attachments/143375/original.pdf?1559320865

(vii) https://cps.edu/Performance/Documents/DataFiles/ParentSurveyFaqs_2018.pdf

(viii) https://consortium.uchicago.edu/sites/default/files/2019-05/Overview%20of%20Analyses.pdf

 (ix) https://cps.edu/SchoolData/Pages/SchoolData.aspx

  (x) https://www.5-essentials.org/illinois/5e/2019/

Once you have read through these materials, review the spreadsheets in the `chicago-public-schools-data` folder then complete the following parts:

(1) Write a brief summary of what the data represents and how the data was collected.

(2) Create a list of at least 6 questions that you might analyze in your project. Each question should have a brief description of why one might be interested in the question and what statistical analysis from the course can be used to answer the question.

(3) For at least one of the quantitative variables you will examine from (2), use Minitab to find the 5-number summary, the mean, and the standard deviation for the variable. Typeset these in a properly formatted table and provide an appropriate visual representation of the data. In a paragraph, discuss the distribution of at least one of these variables and what implication the distribution might have on any statistical analyses you will perform using this variable.

(4) For at least one of the categorical variables you will examine from (2), use Minitab to give an appropriate visual summary of the data and typeset the data into an appropriately formatted table. Discuss any implications the data might have on any statistical analyses you will perform using this variable.

(5) At the beginning of the paper, a significance level for hypothesis tests must be chosen, and test statistics and p-values will eventually need to be discussed in the paper. Write a paragraph explaining, to a lay person, what these values are and what they represent.

Chicago Public Schools Data, Kaggle, https://www.kaggle.com/chicago/chicago-public-schools-data