

Name:

Project 3: Consumer Price Index

Please use the following to answer the questions for Project 3. Make sure to answer the questions in complete sentences with proper grammar and spelling. This document should be saved as a PDF and submitted in Gradescope.

Questions for Task 1:

Double click where it says "Name:" at the top of this document and type your name.

A) What type of data are you studying in the "Cola" tab? (Discrete, continuous, numerical, categorical)?

B) Answer the following three questions.

- i. What formula did you use in cell **I4**?
- ii. What formula did you use in cell **I5**?
- iii. Copy and paste your min, max, range and class size table here.

D) Copy and paste your histogram here.

The Data for this project were obtained from Enigma. The original source of the data can be found at [https://app.enigma.io/table/us.gov.bls.ap.current?search%5B%5D=%40series_area_name\('U.S.'|'City'\)&row=0&col=0&page=1&conjunction=and](https://app.enigma.io/table/us.gov.bls.ap.current?search%5B%5D=%40series_area_name('U.S.'|'City')&row=0&col=0&page=1&conjunction=and). This work is licensed under the Creative Commons Attribution-Share Alike 4.0 United States License. You may copy, distribute, display, and perform this copyrighted work, but only if you give credit to Enigma, and all derivative works based upon it must be published under the Creative Commons Attribution-Share Alike 4.0 International License. The Creative Commons License can be found at <http://creativecommons.org/licenses/by-nc/4.0/legalcode>.

- E) Describe the shape of your histogram in terms of the number of mounds and skewness. What can you conclude about the mean and the median of this data? Answer with complete sentences.
- F) If you were to have to give a presentation about this data to your boss, what type of measure of center and measure of spread would you use? Why?

Questions for Task 2:

- A) What value is in cell **C69** on the **Grapes** Spreadsheet?

- B) Copy and paste your table for the various measures of price of **grapes** here.

- C) Compare the mean and median price of **grapes**. In a sentence, describe what this tells you about the shape of the data. What is the appropriate measure of spread to use for the price of grapes?

- D) Calculate the appropriate measure of spread for the price of **grapes** and report it here. In a sentence, explain what this tells you about the price of grapes.

- E) Copy and paste your table for the various measures of price of **wine** here.
- F) Compare the mean and median price of **wine**. In a sentence describe what this tells you about the shape of the data. What is the appropriate measure of spread to use for the price of wine?
- G) Calculate the appropriate measure of spread for the price of **wine** and report it here. In a sentence, explain what this tells you about the price of wine.

Questions for Task 3:

- A) Look at the histogram that is provided for you in the **Gasoline** sheet. In a sentence, describe the shape of the data and why our usual measures of center and measures of spread are not sufficient for the gasoline data.