

# 3818 R Homework 1

\*\*\* STUDENT NAME HERE \*\*\*

8/20/2020

R Markdown: [https://ntaback.github.io/UofT\\_STA130/Rmarkdownforclassreports.html](https://ntaback.github.io/UofT_STA130/Rmarkdownforclassreports.html)

## Question 1

Go through `introduction_to_R.pdf`. Install R and R studio. In the context of the `introduction_to_R.pdf`, what is the value of nonsense?

*Answer:*

## Question 2

Load the dataset on household and neighbor characteristics found at [https://mattbutner.github.io/data/housing\\_df.csv](https://mattbutner.github.io/data/housing_df.csv) as done in the `introduction_to_R.pdf` document. Look in the upper right panel of R studio, how many variables and how many observations are in this data set?

*# Code for Question 2 Here*

*Answer:* For question 2, the standard deviation is 10.54

## Question 3

The variable descriptions for this dataset can be found on canvas. Look at the `housing_df_info.docx`. Which of the variables are quantitative, which of the variables are categorical?

*Answer:*

## Question 4

Use the function `mean()` to find the average median value of owner-occupied homes in \$1000's. Report the R code and number to two digits.

*# Code for Question 4 Here*

*Answer:*

## Question 5

Use the function `sd()` to calculate the sample standard deviation median value of owner-occupied homes in \$1000's. Report the R code and number to two digits.

*# Code for Question 5 Here*

*Answer:* The standard deviation of the median housing value is \$9,197.10.

### Question 6

Using the functions `sqrt()`, `sum()`, `^2`, `length()`, and `mean()`, but not `var()` or `sd()`, calculate the sample standard deviation median value of owner-occupied homes in \$1000's. Report the R code and number to two digits.

```
# Code for Question 6 Here
```

*Answer:*

### Question 7

Use the `hist()` function, create a histogram of NOX pollution. With this distribution is the mean or median a better measure of central tendency?

```
# Code for Question 7 Here
```

*Answer:*