

# PSYC2020L Assignment 2

[name]

2025-08-29

## Goals for Review:

- Basic R functions
- Descriptive statistics

## Setting Up

- 1) Rename this assignment as “Lab 2 Assignment [Last, First].Rmd”
- 2) Check and set your working directory

## Basic R Functions

- 3) Write an R function that takes in two numbers, multiplies them together, and returns the product
- 4) Write an R function that takes in three vectors, puts them in a dataframe, and returns the last two rows of the dataframe.

## Data Summary

- 5) Show me the first five rows of the `airquality` dataset
- 6) Obtain the `summary()` statistics for this dataset

## 7) Ozone Descriptive Statistics

- a) What is the mean?
- b) What is the variance?
- c) What is the standard deviation?

d) What is the IQR?

## 8) Histograms for Ozone

a) Obtain a histogram with breaks = 10

b) Obtain a histogram with breaks = 50

c) Obtain a histogram with breaks = 200

d) Compare three histograms above and describe the differences

## 9) Boxplot for Ozone

a) Obtain a boxplot for Ozone

b) Is the data symmetrical? (Yes / No) How can you tell?

c) Is the data skewed? (Yes / No) How can you tell?

## 10) Descriptive statistics for Temp

a) What is the mean?

b) What is the variance?

c) What is the SD?

d) What is the IQR?

## 11) Histogram for Temp

a) Obtain a histogram with default number of breaks.

## 12) Comparison between Ozone and Temp...

a) Does the mean change? (Yes / No)

b) Which variable has a smaller variance? (Ozone / Temp)

c) Which variable has a smaller SD? (Ozone / Temp)

d) Which variable has a smaller IQR? (Ozone / Temp)