1. Introduction to R

Due Week 1

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F2025

## Readings

* Read the course syllabus (all parts of [this website](../index.qmd))
* Read:
  + **FCSP** chapter 1, *or*
  + **PSDS**, chapter 5 *or*
  + **RDS**, introduction

## Data & Computational Work

The main purpose of this week’s assignment is to get your computer ready for all the work in the class. This means, primarily, installing software.

### Install R on your computer

Begin by installing R (<http://cloud.r-project.org>). Choose the version appropriate for your computing platform:

* If you use macOS with an Apple Silicon processor (i.e. an M-series processor), then install [R for macOS’s Apple Silicon build](https://cloud.r-project.org/bin/macosx/big-sur-arm64/base/R-4.5.1-arm64.pkg). This version does not work on older, Intel-based Macs.
* If you use macOS with an Intel processor, then install [R for macOS’s Intel build](https://cloud.r-project.org/bin/macosx/big-sur-x86_64/base/R-4.5.1-x86_64.pkg).
* If you use Microsoft Windows, then install [R for Windows](https://cloud.r-project.org/bin/windows/base/R-4.5.1-win.exe).
* If you use Linux, [choose your distribution](https://cloud.r-project.org/bin/linux/) and install the R package for it.

### Install RStudio on your computer

* If you use macOS (whether Apple Silicon or Intel), [install this version of RStudio](https://download1.rstudio.org/electron/macos/RStudio-2025.05.1-513.dmg).
* If you use Windows, [install this version of RStudio](https://download1.rstudio.org/electron/windows/RStudio-2025.05.1-513.exe).
* If you use Linux, [choose your distribution from the download page](https://posit.co/download/rstudio-desktop/).

### Confirm things work

* R is really a great big calculator. Let’s do some calculations!
  + Add 2 and 3 together
  + Multiply 4 by 6
  + Divide 10 by 5
* R can do fancier calculations.
  + Take the square root of 25

## Submit: .R File

In an .R file, write code to answer the following questions. Make sure your file is appropriately titled and headered.

1. Create an object named aardvark that stores a 3 as a single number
2. Create a second object named boomba that stores a 6 as a single number
3. Create a third object named centauri that is the addition of aardvark and boomba
4. Create a fourth object named diabolical that is the multiplication aardvark and boomba
5. Create an object named ebullient that stores three numbers as a vector: 4,5,and 6
6. Create an object named fastidious that stores three numbers as a vector: 8,9, and 11
7. Add ebullient and fastidious together, and store it in an object named george
8. Find the mean (average) of fastidious, and store it in an object named zoinks

## Submit: PDF file

Answer the following questions and upload as a PDF to Blackboard.

1. What is your name and program of study at Syracuse?  
   *(Optional: provide your pronouns, if you wish.)*
2. What is your prior experience with statistics, data analysis, R, and computer programming generally?
3. What are you hoping to get out of this class?
4. Please include a picture of yourself!
   * It can be anything – just make sure that you are the only person in the picture so I can clearly identify you.
5. What is the mean of the fastidious object from your .R assignment above?