Lab 1: Getting Started with R

Introduction

The goal of this lab is to introduce you to the fundamental building blocks of the programming language R. You will start by going through some Swirl tutorials/lessons. Each lesson will take anywhere from 10-30 minutes and you can stop and restart them at any time. You can type `bye()` to exit and save your progress, just be sure to use the same name each time. At the end of the lesson you will have the option to send me an email letting me know you have completed the lesson. **Do this so I can give you credit!**

Basic Building Blocks

Each time you start a new session you will need to load the swirl package by typing `library(swirl)` in the console. Then type `swirl()` to start the tutorial. Follow the instruction prompts and enter your name, then choose the **Basic Building Blocks** lesson.

Practice

1. Use `sample(0:100, size=5)` to create vector of 5 random numbers between 1 and 100. Store this result as a variable `x`.
2. Calculate the following

$$\frac{(x-5)^2}{\sqrt{(50-1)}}$$

Assessment

Complete the **Basic Building Blocks** quiz on BBLearn.

Sequences of Numbers

Next you're going to learn how to generate sequences of numbers. These objects you'll create are also called `vectors`. Complete the **Sequences of Numbers** swirl lesson.

Practice

1. List the even numbers from 1 to 12.
2. List the numbers from 10 to 1 in descending order.
3. Create this sequence using `R`: ("A", "B", "C","A", "B", "C")
4. Create this sequence using `R`: ("A", "A", "B","B", "C", "C")

Additional Resources

- MartinStatsLectures: R Tutorial 1.1 - Getting started with R