Overview

**Introduction to hypothesis testing**: This week, you will practice conducting randomization tests for different study designs and to mimic different random processes.

Learning Objectives

Upon completion of these activities, you will:

* explain the importance of testing “no difference” hypotheses
* design a simulator to mimic random processes such as random sampling from multiple populations or random allocation into multiple groups
* interpret *p*-values in terms of strength of evidence against a null hypothesis

Assignments

Assigned readings and lessons:

* Review the following sections from the *Statistical Thinking* book
  + Modeling Sampling Variation
  + Sampling Variation and the Bootstrap Test
  + Experimental Variation and the Randomization Test
  + Quantifying Results: *p*-Value
* Review the three *Example Hypothesis Test* videos

Required submissions:

* Complete the individual component of *Discussion Assignment #6* (due Thursday)
* Complete the group component of *Discussion Assignment #6* (due Sunday)

Other:

* Begin working on *Lab Assignment #3*(due next Thursday)