STAT 280: Statistical Programming

Assignment 7 [Posted: March 21, 2024]
Due: 8:00pm Thursday March 28, 2024

Suggested exercises from textbook: A first course in statistical programming with R, Third Edition. Braun, W. J., & Murdoch, D. J. (2021). Cambridge University Press.

Instructions

- Students should upload their solutions on Moodle before due date. Late submissions will not be accepted.

- Solutions should be uploaded as a singel PDF.

- Make sure to clearly state the problem number in your solutions. Always show the code used to solve an exercise (not the output only, unless explicitly stated) and comment on your code by using **#** where approperiate.

- Readability of code and clarity of presentation will be taken into account when marking.

Textbook problems

- Section 6.2; Poblems **6, 8** and **10** on page 155 - 156:
  (**Problem 6** "Simulate 10000 values of ....(d) Estimate $P(\sqrt{U_1} + \sqrt{U_2} \leq 1.5)$.")
  (**Problem 8** "Use the `round()` function ...... should you modify your procedure?")
  (**Problem 10** "The following code simulates...... approperiate plot to check.).")

- Section 6.3.1; Problems **2** and **3** on page 157:
  (**Problem 2** "Suppose a class of 100 ...... marks of 30% or higher.")
  (**Problem 3** "Write an R function which........ are the theoretical values?")

- Section 6.3.2 ; Problem **7** on pages 161 - 162:
  (**Problem 7** "One version of the ....satisfactorily large in all cases.")

- Section 6.3.3; Problems **6** and **7** on pages 164 - 165:
  (**Problem 6** "One version of the central ...... straight line in the QQ plot?")
  (**Problem 7** "Simulate 10000 realizations of........ use the `jitter()` function.)")