

STAT 212-501 (Fall 2022)

Homework 3

Do the following exercises from your textbook (*Akritis, First Edition*):

A. Problem 4 (a) and (c) (pg. 368 of textbook, Section 10.3).

Instructions for Problem 4:

- For part (c), you should ignore the phrase “and (b)” in the statement. Moreover, you should **also provide** the plot of the confidence intervals from Tukey’s method (using the `plot(TukeyHSD())` command in R) and report the pairs of means that turn out to be significantly different.

General Instructions and Things to Keep in Mind:

1. All homework **submissions must be made online via Canvas**.
2. Your solutions must be uploaded **as a single pdf file** with your **name, course-section and email id clearly printed** on the first page. Your solutions may include a combination of typed pages and/or hand-written documents (properly scanned) and/or R codes with outputs (embedding screenshots of these is acceptable). But they **must** be all combined into a single pdf file and submitted in **Canvas**.
3. It is **your responsibility to ensure** that your **uploaded homework solution is complete, clear and fully legible**, especially if there are scans of hand-written documents involved. If not, the TA may be forced to ignore the affected questions and deduct all allotted points!
4. The **deadline is strict**. (No unwarranted exceptions and/or extension requests will be entertained.)
5. For all exercises, you may use a standard scientific calculator or R/RStudio for any numerical calculations required. In either case, you must show all relevant intermediate steps to get to the result.
6. For all software implementations via R/RStudio, you **must include all the relevant R code along with the outputs, and a clear statement of your final answer(s) to the question(s) asked**.
7. For some problems, you may need to use one or more of the **tables of critical values** for the Normal, t , χ^2 , F and Q distributions. These are available in your textbook (**Tables A.3-A.7, pg. 495-499**).
8. For all exercises, you should **show all your work**, including intermediate calculations and all relevant R codes/outputs, as applicable. Otherwise the TA may choose **not** to give you any partial credit.
9. Review the syllabus very carefully for **all the guidelines and policies** regarding homework assignments. You are **required to abide by them** strictly. Finally, all homework **grading related questions/concerns must be directly addressed to the TA**.