

ST 512 HW 2

Part of the assignment will be turned in during class and part must be uploaded to Moodle prior to class starting. Specifics are given below.

Problems to turn in during class:

9.10 (6 pts) Note: By nominal value, we mean the value we'd like to control the type I error at.

9.13 (14 pts) Ignore the question being asked by the text book. Using only the output provided by the text, give as complete an answer as possible to the following:

- Are there any significant differences among the five weight-reducing agents? Use $\alpha = 0.05$.
- When answering, be sure to state your null and alternative hypotheses, assumptions, test stat, p-value, decision, and conclusion.

9.14b (6 pts)

9.17 (12 pts) Write these out in terms of the means using $\mu_1 = \text{mean for } A_1$, $\mu_2 = \text{mean for } A_2, \dots$, $\mu_5 = \text{mean for } S$.

9.18 (20 pts) Use a Bonferroni correction on the 4 contrasts (these are not in the output and must be done by hand, i.e. no SAS!).

Problem to be uploaded in a single file to Moodle under the HW 2 file upload link.

9.12 (a) (5 pts) Use the Tukey correction.

(b) (4 pts) Give the estimate for the contrast here.

(c) (8 pts) Be sure to state your null and alternative hypotheses, test stat, p-value, conclusion and interpretation.