

BIOS 662, Fall 2018

Homework 5

Assigned: Tuesday, October 9

Due: Tuesday, October 16

1. This is a continuation of problem #2 from Homework 2 involving the dataset “HW2_PGE.txt”. Use the Kolmogorov-Smirnov test to determine whether the distributions of plasma iPGE are the same for people with and without hypercalcemia.
2. Do Problem 6.5 on page 196 of the text. You do not need to do this “by hand” and so can ignore the parenthetical statement about needing to compute hypergeometric probabilities. (In my model solutions I will show how to do it “by hand” though.)
3. Problem 6.11(a)–(c) on page 197 of the text.
4. The file “HW5_Q4.txt” contains the data from Table 6.11 on page 199 of the text in versions suitable for SAS and R (both versions in one text file).
 - (a) Verify that collapsing Table 6.11 over the smoking categories yields the table in Problem 6.13.
 - (b) Calculate the odds ratio (and 95% confidence interval) for the association between coffee drinking and myocardial infarction, with and without taking into account smoking status. Do the calculations ignoring smoking status “by hand”, confirming your results with SAS or R. (The calculations taking smoking status into account do not need to be done “by hand”.)
 - (c) Does smoking status confound the association between coffee drinking and myocardial infarction?