

DATA SCI 415 - Homework 4

Due Friday, February 19, 2025, 11:59 PM

1. Suppose we fit logistic regression to predict the probability a STATS 415 student gets an A in the class, from two variables. The variables are average hours of study per week (X_1) and GPA in other statistics courses taken (X_2). The model estimates $\beta_0 = -4, \beta_1 = 0.05, \beta_2 = 1$. (Note: these are made up numbers! Do not try to predict your own grades with them.)
 - (a) Predict the probability of getting an A for a student who studies 5 hours a week and has a GPA of 3.5 in other statistics courses.
 - (b) What are the odds that this student will get an A?
 - (c) How many hours a week does this student need to study for the model to predict a 50% chance of getting an A?
2. ISLR Chapter 6 Conceptual Exercise 2
3. ISLR Chapter 6 Conceptual Exercise 3