Stats 500 Homework 9

Online Submission to Canvas, Due date: 11:59pm, November 21, 2025

1. (Exercise 1 in Chapter 10 of Linear Models with R, 2nd edition) Use the *prostate* data with *lpsa* as the response and the other variables as predictors. Implement the following variable selection methods to determine the "best" model:

   (a) Backward elimination
   (b) AIC
   (c) Adjusted R2
   (d) Mallows Cp

2. (Exercise 3 in Chapter 10 of Linear Models with R, 2nd edition) Using the *divusa* dataset with *divorce* as the response and the other variables as predictors, repeat the work of the first question.