

# Homework 12

S520, Spring 2019

Due at the beginning of class, Tuesday April 23rd. Include all R code. Please upload your file to Canvas no later than 1pm on the due date. Late submission will be accepted (but penalized) before the solutions are posted.

Trosset question numbers refer to the hardcover textbook. Show all work.

1. (9 points) Trosset Section 15.7 Exercise 4.
2. (6 points) Trosset Section 15.7 Exercise 8.
3. (9 points) Apply the bivariate normal to the baseball wins data `baseball-wins.txt` on Canvas to estimate the following:
  - (a) The probability that a randomly selected team wins at least 84.5 games. You can use either the year 1 wins or year 2 wins to answer this question.
  - (b) The probability that a team that won 95 games one season wins at least 84.5 games the next season.
  - (c) The probability that a team that won 75 games one season wins at least 84.5 games the next season.