

STA 3032 Homework 2

Due on September 14, 2022 at 11:59 p.m.

Instructions:

- Submit the following file to the relevant dropbox on course website.
 1. **One single pdf file** of your report showing your steps, answers, and R output if necessary. This file should be named $HWx_Last.pdf$, where x is the homework number and $Last$ is your last name (e.g., $HW1_Lee.pdf$).
- **No late homework will be accepted.** Make use of the dropping policy stated in the syllabus if you are unable to meet the deadline.
- In the following, WMMY refers to our textbook by Walpole, Myers, Myers, and Ye.

Assignment:

1. WMMY Exercise 3.12.
2. WMMY Exercise 3.14.
3. WMMY Exercise 3.30.
4. WMMY Exercise 3.37.
5. WMMY Exercise 3.45.

In addition, find the marginal pdfs $g(x)$ and $h(y)$, and the conditional pdfs $f(x|y)$ and $f(y|x)$. Are X and Y independent? Explain.
6. WMMY Exercise 3.61.
7. WMMY Exercise 3.75.
8. WMMY Exercise 3.76.