

Homework #5  
Math 455, Spring 2024  
**Due February 19**

Problem 1: Wackerly 11.87. (p. 631, Section 11.14) First answer parts (a)–(d). Then give short yes or no answers to the two questions in the first paragraph of the problem, referring to parts (a)–(d) as necessary to support your answer.

Problem 2: Wackerly 11.88. Give a true or false answer to each of parts (a)–(f), and a short reason (one sentence should be enough) to support each of your answers.

Problem 3: Wackerly 11.89. Give a true or false answer to each of parts (a)–(c), and a short reason (one sentence should be enough) to support each of your answers.

Problem 4: Faraway Chapter 4, Problem 5

Problem 5: Faraway Chapter 5, Problem 1. Give your answer in the form of a table, with the predictors (other than **sex**) included in your model indicated in the first 3 columns, the coefficient of **sex** in the 4th column, the associated  $p$ -value in the 5th column, and the significance (or not) reported in the 6th column. Then write a few sentences commenting on the stability of the effect.