

Homework 5

Math 445, Spring 2017

Due Friday, May 12 by 4:30 p.m.

Instructions

- All assignments should be stapled.

Assignment

Complete the following exercises from **Chapter 6** of the textbook.

Exercise 27

Exercise 29

Exercise 34

Exercise 41

In addition to the textbook problems, complete the following problem:

Problem 5

Suppose that X_1, \dots, X_n form a random sample from the Bernoulli distribution with unknown probability of success p .

- (a) Find the maximum likelihood estimate of p .
- (b) Show that the estimate you found in part (a) attains the Cramer-Rao lower bound.