

Statistics (MATH 4733/5733) Spring 2012

Homework 4

Due: Wed. Feb. 15, start of class

Instructions: Please read the homework policies and guidelines posted on the course webpage. You may **not** use a calculator (or computer) **except** for basic arithmetic functions (e.g., $+$, $-$, \times , \div , $\log 2$, $e^{1/2}$, $\sqrt{10}$). Make sure to write your name and course number in the top right corner of your solution set, as well as the assignment number on top. Please staple your homework. Sections and exercises refer to the exercises in the required course text.

Exercises marked with an asterisk (*) are for students of 5733 only.

Reading

Read Section 5.5 and Notes on Cramér-Rao Inequality.

Conceptual questions

- What does the Fisher information number measure?
- What is the point of the Cramér-Rao bound?

Written Assignment

Section 5.5: 2, 3, 4, 5

Section 11.4: 5, 11

Notes on Cramér-Rao Inequality: Exercises 1*, 2 and 3.