

Statistics (MATH 4733/5733) Spring 2012

Homework 6

Due: Wed. Mar. 14, 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 Sections 5.9 and 6.6

Conceptual questions

- Explain Bayesian estimation. What is a situation where it might make sense to use Bayesian estimation?
- Explain the general notion (for an arbitrary random variable) of how to test a hypothesis. Does accepting a hypothesis mean it is more likely than the alternatives?

Written Assignment

Section 5.8: 1, 3

Section 6.2: 1, 11

Section 6.3: 6, 9

Section 6.4: 1, 10, 11

Section 6.5: 1