Probability (MATH 4733 - 01) Fall 2011
Homework 1

Due: Wed. Aug 31, start of class

Instructions: Please read the homework policies and guidelines posted on the course webpage. You may **not** use a calculator (or computer). 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.

Reading

Read Sections 1.1–2.2. Section 1.1 is a more historical introduction, and is more optional than the other sections.

Conceptual questions

⋆ What is probability? Does the notion of probability make sense for a one-time non-repeatable situation (such as an election)?

⋆ How can the language of set theory be used in a model for probability?

Written Assignment

Total: 100 points. Each problem is worth 10 points unless otherwise noted.

Section 2.2.1: (pp. 26–36) 2 (5 pts), 3 (5 pts), 4 (5 pts), 10 (5 pts), 16 (5 pts), 20, 23, 25, 27 (5 pts), 29, 32, 35, 38

Caution: There is a typo in 23(b) in some printings of the text. It should say show $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$, not $A \cap (B \cup C) = (A \cap B) \cup (B \cap C)$.