Dror Bar-Natan: Classes: 2003-04: Math 157 - Analysis I:

Homework Assignment 6

Assigned Tuesday October 14; not to be submitted

Required reading. All of Spivak Chapter 6.

Recommended for extra practice. From Spivak Chapter 6: 1, 3, 4, 10, 12, 13, 14, 16 parts (a) through (c).

Just for fun. Can you cover an 8×8 chessboard with 21 rectangles of size 3×1 and one little square of size 1×1 ? Can you stuff 125 boxes of size $4 \times 2 \times 1$ inside a cube of size $10 \times 10 \times 10$?

On Term Exam 1. It will take place, as scheduled, during the tutorials on Monday October 20th. You will have an hour and 50 minutes to solve around 5 questions, with no choice questions. The material is everything covered in class until Tuesday October 14th (though not including Thursday October 16th), including everything in the relevant chapters (1–5) of Spivak's book (though not including the appendices to these chapters). Calculators will be allowed but will not be useful beyond emotional support; no devices that can display text will be allowed. Good luck!

Preparing for Term Exam 1.

- Re-read your notes and make sure that you understand everything.
- Re-read Spivak's chapters 1–5 and make sure that you understand *everything* (excluding appendices).
- Make sure that you can solve every homework problem assigned or recommended.
- Take a good look at last year's sample term exam 1, at last year's term exam 1 and its solution and at the 2001 term exam 1. All of these are available from last year's Math 157 web site, http://www.math.toronto.edu/~drorbn/classes/0203/157AnalysisI/.
- It is much more fun to work in a group!