Basic Combinatorics

Math 40210, Section 01 — Fall 2012

Homework 9 — due Wednesday, December 5

General information: I encourage you to talk with your colleagues about homework problems, but your final write-up must be your own work.

You should present your final homework solutions clearly and neatly. Keep in mind that when you write a homework solution, you are trying to communicate the solution to someone other than yourself, so incomplete sentences and personal shorthand is not helpful!

Due to manpower issues, I will only grade selected homework problems, but I plan to quickly post solutions to all the problems soon after I've collected them up.

Reading:

- Section 2.6.2

- Section 2.6.4

- Section 2.6.5

- Section 2.6.6

Problems:

- Section 2.6.2: 1, 6

- Section 2.6.4: 1(d) [this requires some care to get the induction right], 3, 5(d), 8(a) [see 2.6.4 Q7 for the definition of the Lucas numbers L_n], 10, 11

- Section 2.6.5: 2(a,e) [for the last part of e), you might find the equation on page 183 of the book, just before (2.44), useful], 7

- Section 2.6.6: 3, 5, 8