

MATH 579 Exam 8 Part I
Assigned 4/27/10, Due by classtime 4/29/10
Please read the exam instructions.

Please write your answers on separate paper and put your name or initials on every sheet. Cross out work you do not wish graded; incorrect work can lower your grade, even compared with no work at all. Keep this sheet for your records. Show all necessary work in your solutions; if you are unsure, show it. Simplify all numerical answers to be integers, if possible. You are welcome to use your book, notes, calculators, computers, etc. This problem is worth 10-20 points.

You may *NOT* discuss possible solutions to this exam with any human prior to submission. Violations of this policy will cause catastrophic course failure.

Part I: An L-triomino is a tile shaped like a 2×2 grid with one corner missing. A monomino is a single 1×1 square. How many ways there are to tile a $2 \times n$ chessboard with L-triomino's and monomino's? For example, if $n = 2$, the answer is 5.

(note: the L-triomino's may be turned in any of the four ways, and we may use as many as we like of either tile)