Homework 2
MATH4801 Topics in Combinatorics: Combinatorial Game Theory
Fall 2011 – Due on November 30th

Do all of the following problems (not exercises) from the textbook:

5.11, 5.13, 5.16, 5.21, 6.2, 6.3, 6.7, 7.2, 7.3, 7.4,

7.17: In the game SplitNim, on your turn you may remove as many counter from one heap as you like and then split the remains into as many heaps as you like. Calculate the nim values for heaps of size 1 through size 20. Do you hypothesize a pattern? Can you prove it?

Do one of the following two problems from the textbook: 2.12, 5.12.

Bonus: 5.20, 6.4, 7.8.