

## Lab 5

Do not submit either .scm files (for code) or text files (for written answers to questions) for each of the following.

### Programs

1. If you wrote any code so far this semester using `let`, `eval`, or `apply`, be sure you can write the same functions without those crutches<sup>1</sup>. Using them on the exam will result in a very poor grade.
2. When does `let` make sense? Write two functions that use `let` in a reasonable way, and then rewrite them using the lambda translation of `let`. Test for yourself that the code produces the same results.
3. Find a hex partner. Print off only one page of hex paper for every two people, and then play hex:

[http://en.wikipedia.org/wiki/Hex\\_\(board\\_game\)](http://en.wikipedia.org/wiki/Hex_(board_game))

You should be able to fit at least nine 11x11 boards on one page - do not waste paper. Play only one or two games, then switch partners. Write down good strategies for use later. Do not code hex yet. I will give you specifications for coding, and if you code now you will have to do a lot of it over.

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<sup>1</sup>I asked you not to use them, and they have not been needed so far. They do have good uses, we just haven't seen them yet. To be clearer, `let` is often a crutch, but `eval` and `apply` are over-sized hammers.