Senior Seminar Final Project

The final project in Senior Seminar (Math 490) is intended to give you a chance to demonstrate the analytical and technical skills that you have developed as a mathematician at Towson, while also allowing you to demonstrate your ability to convey mathematical concepts in written and presentation form.

The topic of your presentation should be in the broad category of integer sequences, however this may be broadly construed, depending on student interest to other areas of mathematics the students may have a particular interest in, or that relates to the student's future goals.

Groups: The final project must be done in groups of size n, where $1 \leq n \leq 3$.

Each group is required to submit a paper and give a presentation reporting on the results of their project.

Paper: The paper should consist of at least $2n^2 - 5n + 9$ double spaced, pages, compiled in Latex , plus a bibliography (made using bibtex). The paper should describe the history of the mathematics involved as well as an expository explanation of the relevant mathematics as relates to the chosen research project, including proofs where appropriate.

Presentation: The presentation should present the material covered in the paper, but may also include other materials or media as necessary to create an engaging talk for the audience (which will consist of your fellow students as well as other professors in the math department. The presentation may be given either using beamer or blackboard (a chalk talk) or both, however in the case $n = 3$ the presentation must include at least a portion done using the blackboard. The length of the talk should be about $3n^2 - n + 10$ minutes long.

In addition, when $n \geq 2$, each individual should submit a short statement describing the contributions of each member of the group to the project.