Team Projects
Topics and Team Member Names due October 23
Final Approval will be given by October 30

The final project should be done in teams of 3-4 people. If you have a larger team, I will probably have greater expectations for your final project. If you must, or if you have a specific interest not shared by many other students, you can work in a pair or (less preferably) individually. Look at the syllabus and course website for supplemental information on these projects.

In addition to the occasional suggestions I have given and will give during the course of the semester, below are possible ideas for projects to get your creative juices flowing. You do NOT need to do one of these projects. In fact I hope most of you will find something else that may better meet your mutual interests.

Suggestions
A. Create a display depicting women who have made contributions to mathematics throughout history. Include both biographical information (maybe with pictures) and some brief examples of their mathematical contributions. The “poster” might include brief bios and pictures of each person, and the paper might include more detailed information about each person as well as the overall process of completing this project.
B. Make three constructions that show the dual Platonic Solids and their relationships. For instance, construct a cube imbedded within an octahedron (possibly imbedded within another cube). An informational display explaining why these pairs are “duals” of each other might accompany the actual constructions. The paper would discuss the project as a whole as well as include more details about the relationships that you have shown in your constructions.
C. Find a variety of applications of conic sections or fractals (or any other mathematical object or group of objects we have or haven’t studied) to “real life.” For example, most satellite dishes have cross sections that are parabolas, one of the standard conic sections. The coastline of an island can be considered a fractal and thus does not have a well-defined length. Create a poster or online gallery that shows a visual depiction of these applications of mathematics as well as written explanations of these topics. The paper would discuss the process you went about in completing the project as well as more detailed discussions of these applications.
D. Find and read a copy of Flatland by Edwin Abbott or the movie adaptation titled Flatland the Movie. Create your own visual report of this book or write multiple reviews of the film that discusses the way it looks at the idea of dimension. The paper would have a more detailed discussion of the book and the ideas it brings forth about dimension.

Recommendations
You should begin by thinking about possible project ideas and pulling a group together. There is a list of everyone in the class on Moodle. For those who are having difficulty finding a group to work with, feel free to let me know and I can help you find others to work with. I will split the class into two parts and let you know whether your group “poster presentation” will take place on November 30 or December 2. Absence from either of these sessions will affect your personal project grade. Everyone will participate in an evaluation of the “visual” part of each group’s project.

All the papers accompanying the projects will be due on Wednesday December 2. For some projects that are more visually oriented, I would think that a 3-4 page paper could suffice. For those projects where written work might be more central and where the visual is really a supplement to this, longer papers might be required. Appropriate citations and a bibliography must be included as needed.

You will be asked to evaluate your own contribution to the group effort as well as other group members’ contributions after completion of the project (see attached model of this evaluation). This “self-evaluation” will be part of your personal final project grade. If you have any questions or issues about this final project, please raise them in class or via email, or individually with me.
Project Topic Form
Due: Friday, October 23

Group Members:

Proposed Topic or Possible Topics:

Write a sentence or two on what you hope to do with this topic and how you might expect to “display” this topic in the “poster presentation.”

Any questions or issues you want me to help you all out with at this time?