Math 1300 Mathematical Explorations

Course information

Instructor: Professor Steven Strogatz, <u>shs7@cornell.edu</u> Office hours: Monday 12:30-2:30 in 533 Malott Hall

Teaching assistant: Kelsey Houston-Edwards, <u>kah282@cornell.edu</u> Office hours: Thursday 4:30-6:30, in 218 Malott Hall.

The course will be taught using "<u>inquiry-based learning</u>", based on the wonderful investigations available at *Discovering the Art of Mathematics*, <u>http://www.artofmathematics.org</u>

Grading:

30% participation40% portfolio15% homework15% final poster

Participation means:

Working thoughtfully on the in-class investigations Asking and answering questions in class Taking chances, trying things, having a spirit of curiosity and adventure in class Being supportive, encouraging, and respectful of other students Engaging with other students at your table Listening actively when someone else is speaking Attending class every time Asking and answering questions on Piazza, sharing ideas there, helping other students Never texting or checking your phone during class (Advice: Put it in airplane mode!)

Portfolio:

Every Tuesday and Thursday night after class, and whenever the urge strikes you, I'd like you to write neat, clear descriptions of that day's in-class investigations and your further thoughts about them after class. These should be written as readable, coherent little stories, not just fragments of sentences. Please write them in a spiral notebook, or type them and include them in a three-ring binder, along with any sketches or photographs that might help you remember and convey your ideas more clearly. Think of these write-ups as your record of work for the course. They're like an artist's portfolio, a writer's journal or a scientist's lab notebook, and should include an account of your attempts to solve the problems we've discussed, any frustrations or confusions you have, any ideas or questions that spring to mind, things you're wondering about, etc. Prof. Strogatz and Kelsey will collect the notebooks every two weeks or so and will give you feedback on them.

Homework:

Occasionally you'll be asked to hand in a short writing assignment (e.g. your mathematical autobiography), separate from the work in your portfolio. These should be submitted as 2-page PDF files and attached to email.

Poster:

As a final creative project, you'll make a poster about a notable mathematician of your choice from the 20th or 21st century. This will be due right before Thanksgiving break, followed by a poster fair after we return from break.