

MATH 64091
KSU, Fall 2015
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Project Info

Your project should be based on one (or two) of the suggested papers. Your project has to be mathematically challenging. If your topic allows you to create a lesson/homework assignment that could be used in this class, this would be great. (For example, our Boxes and Bricks homework is based on the paper *Filling boxes with bricks* by Nicholas G. de Bruijn, available at http://www.math.kent.edu/~soprunova/64091s15/filling_boxes.pdf) Make sure that your topic is not something that you studied in a different course or is a part of the standard undergraduate curriculum.

You will need to write a paper on your project. Your paper should have an introduction, main discussion, and a list of references. Please structure your discussion in a mathematical way, with definitions, examples, propositions, lemmas, theorems, etc. If you are putting together a list of problems, do this in a separate section (it's okay to use these problems throughout the text as well if needed for discussion). When reading a math paper, you need to understand and digest the material and explain it in your paper in your own (better) way. Explaining the history of the topic/problem and related results is good.

You will need to make a 5-minute chalkboard presentation on your project on November 24th. This will be mostly about what you plan to do in your project. You will also submit a short outline on November 24th. Your first draft is due on December 1st. On December 8th you will give a 15-minute Powerpoint presentation and will submit your final paper. In your presentation, do not try to explain everything that you have done. Show examples, explain results, do show some arguments/proofs, but skip the harder ones. Make sure your presentation is easy to follow. Leave more complicated details for the paper.