Math 300 First Paper Rubric

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Your paper will be graded on the following rubric:

30 points **Style and Framing**

4 points: Title

The paper should have a clear title, give the name of the author and the author's college affiliation, and nothing else.

6 points: Abstract

A good paper should begin with an *abstract*, a 3-4 sentence sales pitch explaining what your paper covers and why one might be interested in it. A good abstract tells the reader what the main result or conclusion of your paper is; identifies the main tool or tools used to reach that conclusion; and gives some perspective on how this conclusion relates to other topics your reader may be interested in. Use the LaTeX "abstract" environment for this.

10 points: Framing material

Your paper should feature an introduction, which at first blush seems to cover much the same ground as the abstract. The introduction should provide some context for your problem: either historical context (when was it first studied? When was the core problem solved?) or field context (how does this fit into the broader subject?) are reasonable.

10 points: Writing style

Your paper should be well-organized, with transitions that flow from one section to the next. It should be free of obvious grammatical and spelling errors, and formatted legibly. (If the act of reading your paper is painful or unpleasant, this is where I can take points off).

30 points **Mathematical Content** I will evaluate the mathematical content of your paper. I won't break this down into sub-topics with fixed numbers of points because different papers will have different types of content in different ratios–for instance, some topics will require many definitions and some will require only one or two. I will be looking for a few things:

- The centerpiece of your paper should be your theorem and its proof.

  Every claim should be stated clearly, precisely, and correctly, in formal mathematical language. When possible, claims should also be explained informally, to help readers figure out how to think about them.

- Your paper should clearly define any terms you expect your fellow math majors to be unfamiliar with, and any terms that are central to your paper. Definitions should be clearly and precisely stated, and ideally come with a sentence or two explaining how your readers should think about the concept being defined.
- Your proofs should be correct, clearly written, and display understanding of the details of the argument and the topic. Again, try to give a technical argument and also an explanation of how to think about it—an intuition or motivation.