

MATH 220:901, 904 & 905 Writing Assignment  
Fall 2014

Write an expository paper on a mathematical topic. The text must be at least 2000 words long and typed (approximately 8 pages if double spaced).

- The paper should be directed to your peers unfamiliar with the topic.
- Make sure that you have read the "Communicating Mathematics" handout and follow techniques/directions explained there. It is highly recommended to read [1] and [2].
- The paper need not contain full proofs, but *should have significant mathematical content* (e.g. an outline of the proof, its steps, and techniques used).
- Special attention must be given to the notations used, so before starting your math term paper you should specify them and be consistent throughout the text. Make sure that all of the variables that you use are described.
- Be sure to include worked out details of the main topic or result. Include simple examples to illustrate of all important ideas (pictures and diagrams could be useful).
- Include applications and/or activities related to your topic.
- Be sure to simplify your ideas and put them in a straightforward way. As a question is raised in the reader's mind, the paper is ready to answer it.
- Make sure your writing is clear and easy to understand. (no sentence fragments; punctuation is correct (including in formulas); text flows smoothly; spelling is right.)
- Use mathematical symbols correctly (see also [1]).
- Organize the paper into named sections (subsections etc.) to make the exposition clearer.
- A standard format for math term papers:

**Title** The title should reflect the central point of the paper. Be creative.

**Abstract** Briefly summarize your paper proposal to reflect the focusing question.

**Introduction** State the problem here. Explain why the problem is important. Describe the history of the problem. Briefly describe what will follow in the paper. You may also mention related problems.

**Body** (the main part consisting of a few sections.)

**Conclusion**

**References** References must be given for each and every work cited. You must use and cite two or more sources, at least one of which must be printed (e.g. a book, journal, or newspaper article).

**Figures and Tables** All graphs, tables, diagrams and other pictures should be neatly drawn with relevant labels. Do not embed them in the text. They should be collected in an appendix at the end of the paper, labeled (for references in the text) and titled.

**Appendix** You can have more appendices if needed.

## References

- [1] K.P. Lee, A Guide to Writing Mathematics, <http://www.cs.ucdavis.edu/~amenta/w10/writingman.pdf>
- [2] M. Tomforde, Mathematical Writing: A Brief Guide, <http://www.math.uh.edu/~tomforde/MathWriting.pdf>

## **Outline**

The outline should briefly describe what you plan to include in the text. It must be typed (double space with margins 1 inch wide.)

## **Draft**

A draft of the paper should reflect your idea of the final paper as close as possible. However, it is not necessary to get a polished presentation. It must be typed (double space with margins 1 inch wide.) Also read the Student Editor Worksheet at this step ([http://www.math.tamu.edu/~shatalov/220\\_Writing\\_Assignment\\_F14.html](http://www.math.tamu.edu/~shatalov/220_Writing_Assignment_F14.html)).

**Good luck with your paper writing!**