

## Math 4513 homework

Homework Assignment #5 (due 2/21) Briefly examine the websites of the AMS and the MAA, which are the first two links on my links page

<http://www.math.ou.edu/~dmccullough/links/mathlinks.html>

Then, check out the website for the Oklahoma-Arkansas section of the MAA (the third link on my links page). Follow the link on Meeting Locations to Information to This Year's Meeting Info, then use OK-AR Preliminary Announcement to download a pdf of information about this year's meeting. You can get an idea of the wide variety of talks at that same page by looking through the abstracts of the 2010 meeting talks (one of them was mine). Then, give some thought to attending the meeting. It is nice luck for us that it is so nearby this year.

Homework Assignment #6 (due around the end of February) Write a several page document on methods of proof. Structure it however you wish, and emphasize any aspects that you choose, but do include some discussion of (1) proving implications by direct argument and by arguing the contrapositive, (2) proof by contradiction, and (3) use of quantifiers, including explanations and examples of each of these. Try not to make it too long (ten or twenty pages is very likely getting too elaborate), but do try to do something more than just a basic description of the methods and some examples. It does not have to be word processed or look pretty, just make it easy for me to read (the content is what will look beautiful to me). You should also reference and include a bibliography for the sources that you use, other than my seminar presentations. By the way, after we complete the the course retrospective I will give a seminar about things to think about when writing mathematics, and this assignment will be a chance for you to apply some of them. For now, try to get ideas and collect examples and references that you might use.