

# Humke's *DUR* Fall, 2012 – Math 396

## A Q&A Lay of the Land

### 1. What Do We Do on Day 1?

On the first day I'll introduce each of the problems and then the class will divide into two groups with each group working on one of the problems. I'll then ask you to begin an internet search for information concerning your groups particular problem.

### 2. And Next Week and Beyond?

I'll schedule a meeting with each group once per week. One group will meet Tuesday at 8:00 and the other Thursday at 8:00. We can also meet at other times and you should feel free to call the *HotLine*–507-301-8475 anytime you want to report something or are in need of advice.

### 3. Do We Meet as a Class Again?

Yes, but only rarely. We'll meet again in about a month where each group will explain its problem and their preliminary findings to the group using a *Beamer* presentation. We'll meet again at the final exam period (Saturday, Dec. 15, 2:00-4:00 p.m.) where each group will make a final *Beamer* presentation and turn in the  $\text{\LaTeX}$  code for its final paper.

### 4. What is Known About These Problems?

Well, as far as I know, not too much. These are real research problems and as far as I know, no one knows how to solve them.

### 5. Can You Really Expect Students to Solve Them if Professionals Can't?

I don't mean to imply that professionals can't, only that professionals haven't. These problems might be hard or easy, I simply haven't a clue as I haven't worked on them. I chose these particular problems as I think if we can't solve them completely, we will likely find something interesting about each of them.

### 6. What is Expected of Us?

I expect several things:

- That you plug away on your problem only on the days you eat.
- That you communicate frequently and coordinate with your research group and that you do your best to pull your weight.
- That you learn the basics of professional mathematical communication including  $\text{\LaTeX}$ , *bibtex*, and *Beamer*.
- That you make a well organized presentation of your work and that your final paper is well organized and documented.
- That we work hard and have GREAT FUN!! this term.