

## Adriana Silvia Sofer - Teaching Experience and Statement

- I have been teaching mathematics -in different capacities- for 30 years. I have worked with all kinds of students, from the gifted to the reluctant. One needs a variety of approaches to work with students of different abilities. But, invariably, the biggest growth happens when learners confront a question on their own. It is even better if the students come up with the question themselves.
- I try to incorporate as much independent thinking in the classroom as possible by presenting a mathematical situation and prodding my students into discovering interesting points.
- I teach the Introduction to Number Theory course at UT regularly, where I have the opportunity to include weekly student-led presentation sessions. A typical session runs this way: a student volunteers to go to the blackboard to show a solution to a pre-assigned problem. Afterwards, the speaker and members of the audience embark on a discussion on content and presentation, and sometimes on possible generalizations or refinements. These exchanges can get very lively. Feedback shows that students find these sessions very enriching.

The following are some highlights of my teaching career.

- I was John H. Conway's co-teacher in his acclaimed Honors Analysis class at Princeton University. We shared instructional time each time the class met. I therefore had the privilege to observe at length and learn from Professor Conway.
- I contributed material and taught an inquiry-based class for UTeach students (Foundations of Number Systems).
- I have run hands-on weekly Enrichment Math Sessions for elementary school students for many years.
- I ran Number Theory support sessions for participants in Dr. de la Ossa's mini course "Calabi-Yau Manifolds over Finite Fields", part of the Mentoring Program for Women in Mathematics held at the Institute for Advanced Study in Princeton in 2001. The material of Dr. de la Ossa's course was at the interface of Theoretical Physics and Number Theory. Most participants in the support sessions were comfortable with Applied Math, but not so with Number Theory. It was an interesting challenge to strike the right note with this particular group.