## TCU Math Newsletter

Volume 5, Number 4

December 1996 - January 1997

You are the only one who can use your ability. It is an awesome responsibility.

- Zig Ziglar

### Math Department Holiday Buffet on December 12

The TCU Mathematics Department will hold its annual Holiday Buffet from 11:00 a.m. to 1:00 p.m. on Thursday, December 12 in Winton Scott Hall 171. All TCU mathematics majors and graders are invited to come and enjoy the food and a break from studying.

If you would like to attend, please come to the Math Department office to sign up to bring something. Students can instead make a \$1.00 contribution toward buying the turkey. We hope you can join us.

# Two TCU Lectureship Series Talks Scheduled in January

The next talk in the TCU Mathematics Department Research Lectureship Series will be presented by Professor C. Martin Edwards of the University of Oxford, England. His talk, entitled "Algebraic Properties of Complex Banach Spaces," will be presented on Tuesday, January 14. Another lecture will be given on Tuesday, January 28 by Professor Jeff Lee of Texas Tech University. He will talk about "Curvature and Spectrum." Both of these talks will be presented at 4:00 p.m. in Winton Scott Hall 145. Refreshments will be served in Winton Scott Hall 171 during the half-hour preceding each talk.

### Solution to the November 1996 Problem of the Month

**Problem:** A polyhedron is a solid with polygonal faces, such as a cube, a pyramid, or a prism. Does there exist a polyhedron that has an even number of faces with an odd number of sides (e.g. triangles, pentagons, ...)? Give an example or explain why one can't exist?

**Solution:** Many such polyhedra exist. TCU undergraduate Ross Acker gave the example of a pair of tetrahedra glued together at a face, which has six triangular faces.

High school student Eileen Kelly solved the October problem of the month. Her name was accidentally omitted when the solution appeared in the November issue.

#### Problem of the Month

A slight change in last month's problem results in an entirely different result. Show that there does not exist a polyhedron that has an odd number of faces each with an odd number of sides (e.g. triangles, pentagons, ...)? Any number of faces each with an even number of sides is allowable.

Students and others are invited to submit solutions to Dr. George Gilbert (Math Dept. Office or P.O. 298900). Correct solutions submitted by persons who are not members of the TCU math faculty will be acknowledged in the next issue of the newsletter. Note that a correct solution is an answer and a justification of its correctness. The solution to the problem will be published in the next edition of the newsletter.