

**Geometry...from page 4**

LG at each grade level contains three units-Paths: Representations of Actions, Shapes: Special Paths, and Motions: Building Blocks for Spatial Problem Solving. Grades 4-6 has an additional unit called GeoTools: A Transition to Traditional Geometry.

In Use the Turtle the student can use the Logo language to explore turtle movements. Features include a slow turning turtle so students can observe the turning motion for turn commands.

Maps offers 6 different maps where students have to reach a given target and avoid obstacles.

Target Games offers practice in estimating distances and angles. Shapes challenges students to draw a variety of shapes with stated prerequisites. Students learn about the nature of various polygons.

Other titles include: Turtle Deliveries, Games, Sum of Interior Angles, Mirror, Are they Congruent?, Symmetry and Motions, Measuring Similar figures, and perpendicular bisectors.

In Turtle Deliveries students write procedures to deliver pies to three locations.

Each activity comes with a lesson description and follow up activity sheets.

This project is significant in terms of what it can contribute to the learning of Geometry in the elementary school. It's an opportunity for both children and teachers to explore geometric ideas in a informal and meaningful way. It is the kind of software package that introduces geometry in ways that force teachers to rethink and restructure the way they have been teaching geometry in the past.

**Editor...from page 1**

that would oversee the integrity of the way technology is used at all NCTM meetings. I have sent a letter for review (see enclosed) to our CLIME committee. I hope you will read it and offer your suggestions as to how it can be improved. (Write your comments on the letter and send it back to us.) I think this is a very important matter that we need to pull together on to see if we can make a difference in NCTM's handling of the technology issue.

During your summer "break", I hope that you can find some time to reflect on how you might contribute to our effort. We encourage you to share what you are doing with us in the form of articles, letters to the editor, news items, microworlds, etc. Please don't think that what you have to contribute is insignificant. Our readership is always interested in what people are doing with Logo.

Our next newsletter will be out in late October. We would appreciate it if you can get "stuff" to us sometime during the summer or early September. We will be happy to put your name in print!



*The Editorial Staff*

## ***Some Thoughts on the Logo and Mathematics Education Conference in Australia***

*by Brian Harvey*

*When he is not attending conferences Brian teaches computer science to undergraduates at Berkeley. He is the author of Computer Science Logo Style - a three volume series intended for sophisticated high school students. Brian wants the readers to know that these are some thoughts that he found relevant at the time and are not meant to be "official" minutes of the meeting.*

The conference itself was quite interesting. There was a clear division into two groups, the Australian school teachers and the university experts. The teachers are part of the Sunrise project that Liddy organized, in which they put a lot of computers into a school and do stuff with Logo and generally try to loosen up the schooling process. At one point the teachers were feeling pretty defensive because the discussion was either too technical or too philosophical and they felt excluded. Later we had a long session in which they talked about their work and people raised interesting practical questions. (For example, they are really into laptops despite problems of security and having to hand out floppies all the time. I'm still not sure what the advantage is, although indeed it's pretty sexy to see all the kids carrying their laptops around the school.)