Conferences (Continued from page 2)

Proceedings are available from Prof. Joel Hillel, Dept. of Mathematics, HB-234, Concordia University, 7141 Sherbrooke St. W., Montreal, Quebec H4B 1R6, Canada. In addition to the diverse research reports, there were plenary lectures by Celia Hoyles, Richard Nosss, Tom Kiernan, Uri Leron, and John Mason. Three working groups were also conducted: Object oriented Logo, Logo and Geometry, and Teacher education and Logo.

NECC '88

As you probably know by now the National Education Computing Conference is being held in Dallas, June 15-17. There will be several sessions where Logo will be discussed.

Since there is a SigLogo meeting planned, we will not have a separate CLIME meeting. We hope to see you at the SigLogo meeting.

NECC and Logo at a Glance

Wednesday, June 15

1:30-3:00

Logo and Mathematics: Abstract to Concrete (Panel), T. Lough, I. Charischak, M. Rosen, N. Kovatch

3:30-5:00

Teachers as Collaborative Resources: Assessing Logo Learning, D. and M. Watt

Logo and Equity, S. Burrowes, R. Sutton, E. Fleming

7:00-9:00 (pm)

SigLogo Annual Meeting

Thursday, June 16

8:30-10:00

Learning Mathematical Concepts through Logo, S. Turner, M. Land

Teaching BASIC and Pascal "Logo" Style, S. Burrowes Yoder

1:30-3:00

Graphical Techniques as Revision Aids: An Exploration with Logo, P. Freyd, K. Morris-Basik

Friday, June 17

8:30-10:00

Making Movies with LogoWriter, D. March *Improvements on Criticial Thinking with Logo (2nd Grade)*, P. Ohme, M. Knight

Effects of Logo Programming on Young Children's creative Thinking Abilities, S. Brown

Graph Works and Survey Tools for LogoWriter, M. Upton

10:30-12:00

Learner Characteristics and Logo Programming, S. MacGregor, J. Repman

Guided Problem Solving, Young Chidren, Logo, and Improved Higher Order Thinking Skills, A. Shore

A Towards Procedure

A useful tool to have in your Logo bag of tricks is a procedure that will aim the turtle towards a specific point on the screen. This is particularly helpful in drawing triangles. The procedure requires knowing the arctangent of a given angle.

The procedures that follow are written in LogoWriter 1.1. IF you wish to make these procedures act as primitives you can use them as tools. Create a page called TOOLS that contains these procedures. Choose another page and type GETTOOLS "TOOLS. This will load these procedures into memory and you can use them as if they were primitives. (LogoWriter 2.0 has TOWARDS, ARCTAN, XCOR, and YCOR as primitives.)

```
TO TOWARDS :POS
OP TOWARDS1 (FIRST :POS) - XCOR (LAST :POS) - YCOR
END

TO TOWARDS1 :DX :DY
OP TOWARDS3 :DX :DY TOWARDS2 ABS :DX ABS :DY
END

TO TOWARDS2 :DX :DY
IF :DX = 0 [OP 0 ]
IF :DY = 0 [ OP 90 ]
OP ARCTAN (:DX / :DY)
END

TO TOWARDS3 :DX :DY
IF :DY < 0 [ MAKE "ANG 180 - :ANG ]
IF :DX < 0 [ MAKE "ANG 360 - :ANG ]
OP :ANG
END

TO ARCTAN :X
OP 57.3 * ARCTAN.RAD :X
END

TO ARCTAN.RAD :X
IF :X > 1 [ OP 1.571 - ARCTAN.RAD (1 / :X) ]
OP :X / (1 + .28 * :X * :X)
END

TO XCOR
OP FIRST POS
END

TO YCOR
OP LAST POS
END

TO ABS :NUM
OP IFELSE :NUM < 0 [ -:NUM ] [ :NUM ]
END
```