Announcements ... Summer Programs

The *Leadership Program in Discrete Mathematics* will conduct its fifth annual summer program at Rutgers University this summer during the three weeks from June 28 - July 16, 1993. Two residential institutes will be offered -- one primarily for high school teachers and supervisors, and the other primarily for middle school teachers and elementary mathematics specialists and teachers. Participants will be expected to attend follow-up sessions during the school year and a two-week follow-up program during the summer of 1994. The 1993 institutes will focus on applications of graphs, graphs and algorithms, and combinatorics; other discrete mathematics topics, such as fractals and mathematical notions of fairness, will be the focus of the 1994 follow-up sessions, but will be introduced during the 1993 program. Graduate credit will be available. Funding by the National Science Foundation provides for all costs of the institute and a stipend for $300 per week. Participants will be expected to assume leadership roles in bringing discrete mathematics to their classrooms and schools, and in introducing their colleagues to these topics, both within their districts and beyond. The staff of the institutes include college faculty members who have specialized in these areas and high school and middle school teachers who have participated in past programs and have used the materials extensively in their own classrooms. For further information and application forms, please call Stephanie Micale at 908/932-4065, or write to Leadership Program, P. O. Box 10867, New Brunswick, New Jersey 08906. ■

The *Implementing the NCTM Standard in Discrete Mathematics Project* will be conducting workshops for grades 7-12 teachers at six sites during the three weeks from July 12-30, 1993 -- Boston College, University of North Carolina at Chapel Hill, Illinois State University at Normal, Southwest Texas State University at San Marcos, Portland State University, and California Polytechnic University at Pomona. Staff of these workshops will be leadership teams of high school teachers who worked together in the summer of 1992 to prepare this inservice model based on the recommendations of the Standards. Topics included will be social choice, graph theory, counting and finite probability, matrices and recursion. Participants will be expected to implement the materials they acquire in their own mathematics classes and to conduct some inservice activities in their own districts. They will return to campus once during the school year to share experiences with their colleagues and to plan outreach activities. For additional information contact the program director, Margaret Kenney at 617/552-3775 or write to Mathematics Institute, Boston College, Chestnut Hill, Massachusetts 02167. ■

Information about other summer programs will be included in the next issue of the Newsletter if received by January 1.

Teaching briefs... Investigating Pythagorean Triples

(Continued from page 5)

why using triangles. This didn't help us get what we wanted, but did leave an unanswered question [discussed and answered later] -- Is there an expression representing the triangular numbers? Also, Tom noticed that the triangular numbers occur in Pascal's triangle.

We also noticed that the column **b** numbers are multiples of the term numbers. This led to the discovery that we had one factor being ***n*** and the other factor an even number, not **2*n***, but **2*n* - 2**. This gave us the expression for the numbers in column **b** -- ***n*(2*n* - 2)**, which can be factored and written **2*n*(*n* - 1)**. Since the numbers in column **c** are one more than the numbers in column **b**, we get the expression **2*n*(*n* - 1) + 1** for column **c**. ■

More Sets of Pythagorean Triples to Investigate

SET FIVE		
25	0	25
35	12	37
45	28	53
---	48	73
---	---	97
---	100	---
85	---	---
---	---	---
---	---	233
SET SIX		
---	9	41
56	33	65
72	---	97
88	---	---
---	---	185
---	209	---
---	---	---
SET SEVEN		
---	11	61
---	39	89
100	75	125
120	---	---
---	---	221
160	231	281
---	299	---
---	---	---
SET EIGHT		
---	7	---
36	27	45
---	---	73
---	---	109
72	---	---
---	187	205
---	---	---
108	315	333
---	---	409
SET NINE		
---	---	49
63	---	65
77	36	85
91	60	---
---	60	---
119	---	---
---	156	---
147	196	245
---	---	---