Abacus

Once again, due to lack of submissions from OAME members, I have decided to reprint activities from another journal. The activities in this issue of the Abacus are taken from the Manitoba Association of Mathematics Teachers (MAMT) May, 1996 issue of "The Math Journal". I found the editor's message in that journal to be most interesting: Here are the last 2 paragraphs:

"This latest Journal illustrates a practical, and hopefully, motivating, presentation of ideas and problem-solving tasks. There are many teachers who are creative, innovative and care deeply about their profession. Perhaps submissions of ideas, and lessons could be shared with our peers.

As an editor and an elementary teacher, I have contact with teachers in similar situations. I have had access to ideas and material at the elementary level. Therefore, articles at middle years or senior years level has been limited. I am seeking a greater balance of articles in the Journal to meet the needs of all the readers. Is there anyone at middle years or senior years level out there who is willing to submit articles or ideas? If so, please contact me by phone, fax or mail."

Let us see ... we need elementary level articles and they need secondary level material...Hmm...Is there the possibility of sharing resources here?

On a different note, since this is my last issue as *Abacus* Editor, a few thank yous are in order:

To Jack - For putting up with all my "rookie" mistakes.

To Penny - For making each issue look fantastic.

To Everyone who made submissions - thank you for your time and effort. (It was greatly appreciated.)

To OAME and the Publications Committee- For having the confidence in me to let me try this job.

Best Wishes to Frances Schatz - your new *Abacus* Editor.

Jennifer

THINGS THAT WORK

Acknowledgement: These activities have been reproduced from the Math Journal of The Manitoba Association of Mathematics Teachers May 1996 issue.

Karen Yamada, Tim Fast

We have received permission from Karen Yamada, and Tim Fast to use some of their ideas from a workshop given in 1992 called "Things That Work". These ideas are worth trying in our classrooms. The title was catchy, and the content was practical.

PATTERNS & PROBLEM- SOLVING

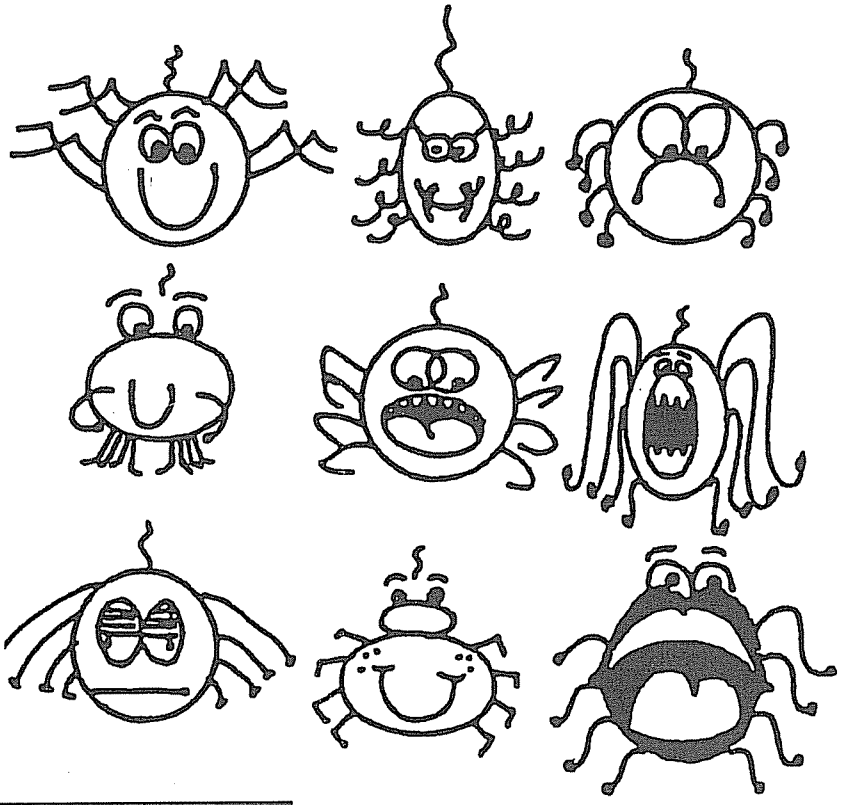
- recognizing
- exploring/building
- describing patterns:
  - concretely
  - pictorially
  - symbolically

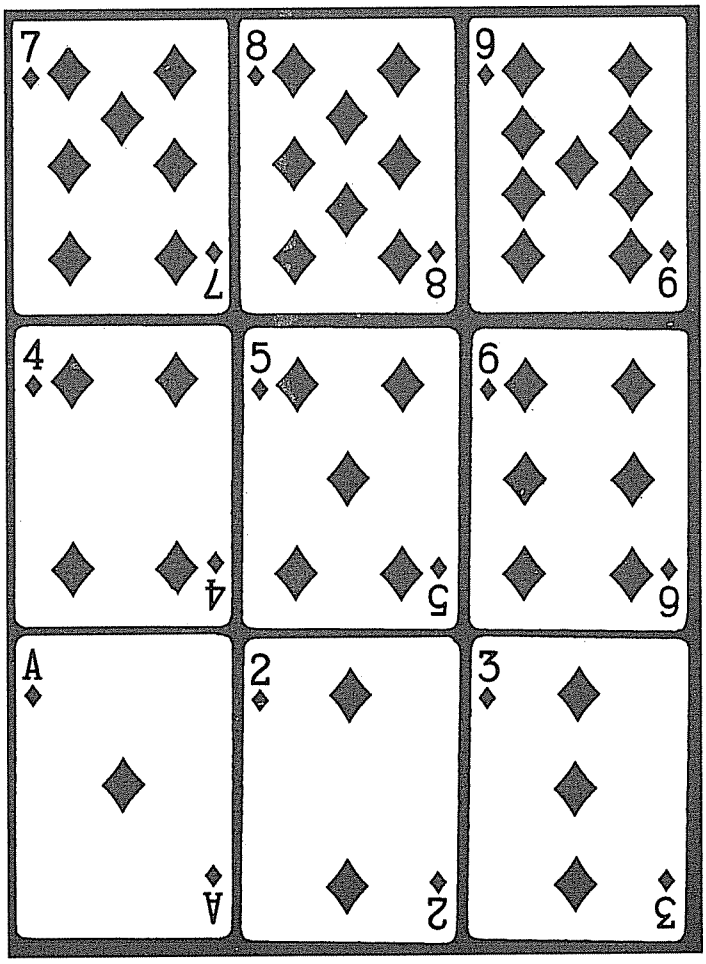
Materials are provided with acknowledgement to:

- Fort Garry School Division
  5 to 8 Mathematics Steering Committee
- Fort Garry School Division
  Instructional Media Centre
- Hands-on Math
  Peggy Hill
- Wollygoggles
  Thomas C. O'Brien
- Program Development Branch
  Manitoba Education and Training

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Edited by Jennifer Weiner, c/o Department of Mathematics and Statistics, University of Guelph, Guelph ON N1G 2W1
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■ Rearrange the nine spiders so that they form ten different rows, with three different spiders in each row.

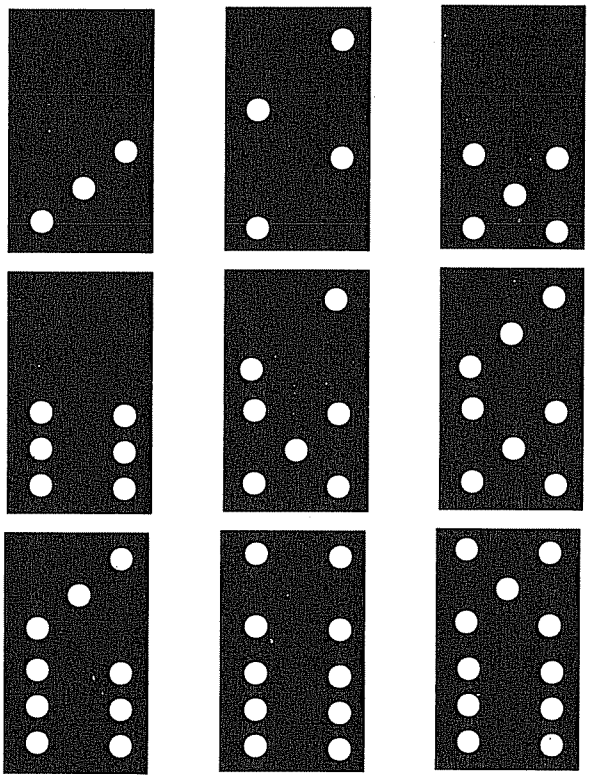




■ Rearrange the cards in this formation so that each vertical, horizontal and diagonal line of three adds up to fifteen.

Twenty-one or bust!

Rearrange the dominoes so that the sum of the dots on every horizontal, vertical and diagonal row equals 21.



Discover the pattern

1. 1, L, △, □, 11, 1L, ____, ____

2. a, c, e, g, ____, ____

3.

top	lip	men	bet	
tap	lap	man		rat

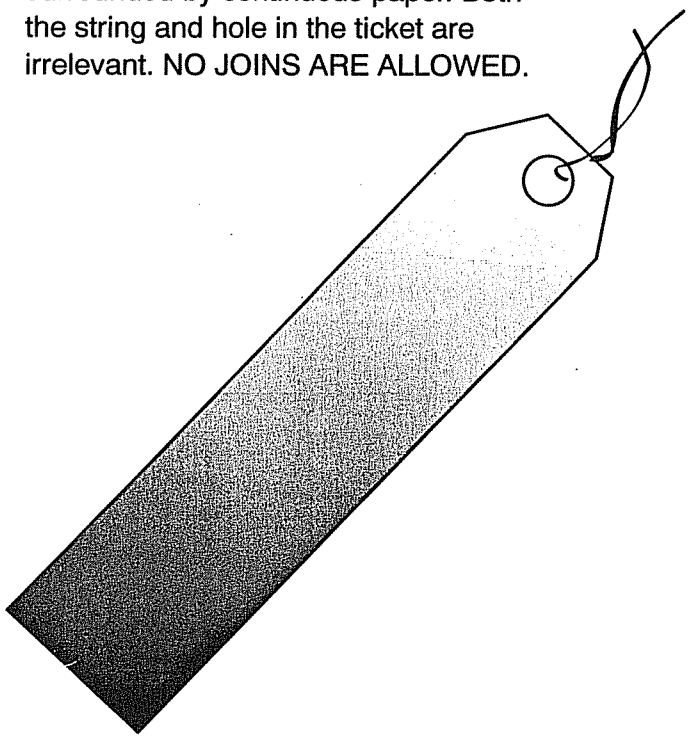
4. 12, 13, 15, 12, ____, 13, 19, 12, 4

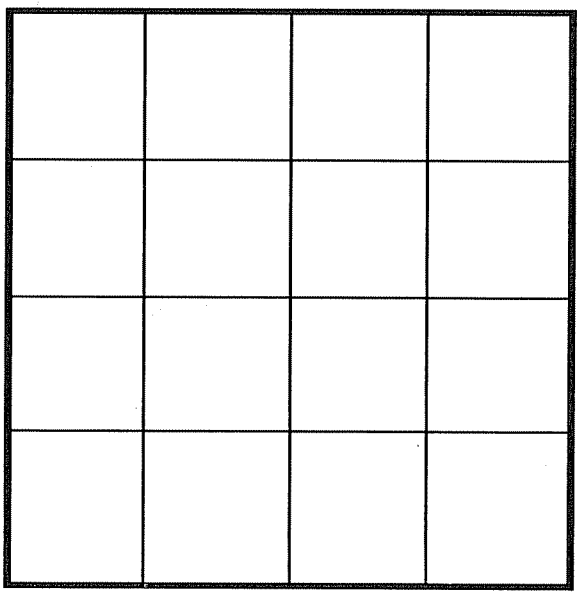
5. Ann, Brad, Carol, _____, _____

6.

Likes	Dislikes
cabbage	coleslaw
lobster	shrimp
roast duck	baked duck

Cut a hole in this ticket big enough to put your head through. A hole is a space surrounded by continuous paper. Both the string and hole in the ticket are irrelevant. NO JOINS ARE ALLOWED.





Colour four squares blue, three red, three green, three yellow and three white. Arrange them so that no two of the same colour are in line horizontally, vertically or diagonally.

Pattern Blocks

Instructions

Either place a divider between yourself and your partner or sit back-to-back. Give Sheet 2 to your partner. Your partner can cover the shapes on the left of Sheet 2 with the matching pattern blocks.

Give yourself Sheet 1, and also cover the shapes on the left with the matching pattern blocks. Do not allow your partner to see your Sheet 1.

To describe the shapes, use either the proper names of the shapes: triangle, square, trapezoid, parallelogram, and rhombus, or use a description of the shapes, but not their colours.

To move the shapes, use only the words:

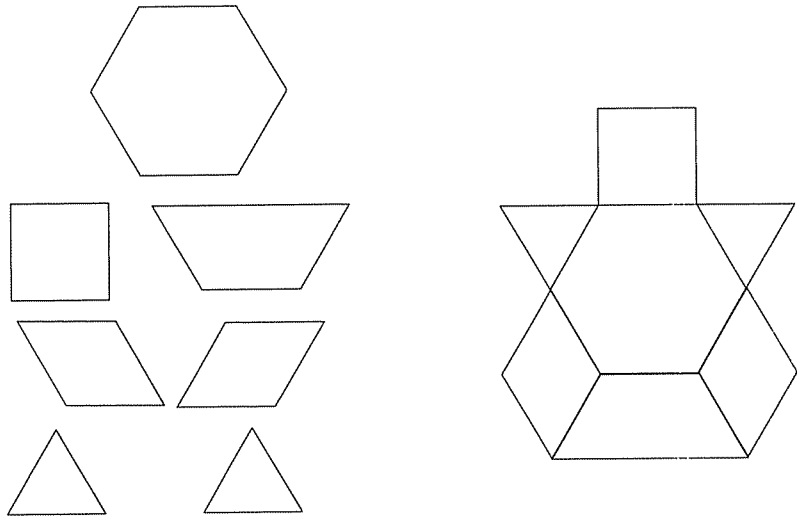
- **Slide** (left or right, up or down, plus a distance in cm).
- **Flip** (horizontally or vertically).
- **Turn** (clockwise or counter clockwise, plus a distance expressed as a fraction).

Using Sheet 1, one partner will describe to the other partner how to move the pattern blocks on Sheet 2 to their correct positions in the diagram on the right.

The person describing the moves to his partner may choose to watch his partner or to give instructions without seeing their results!

Sheet 1

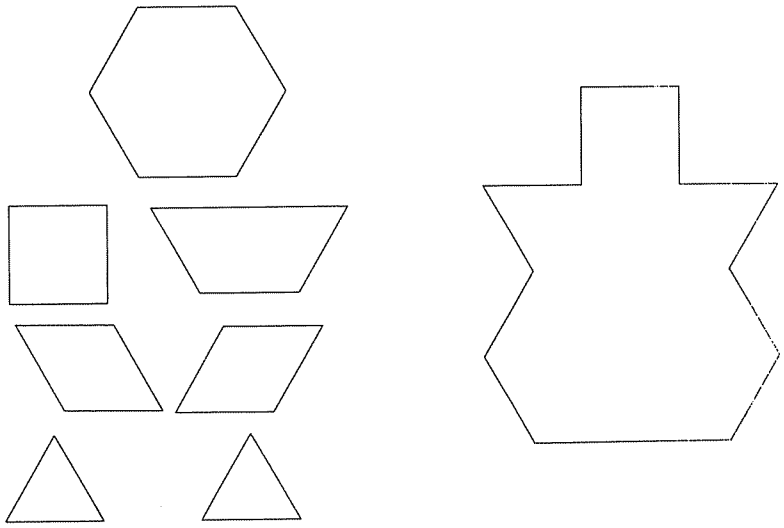
Do not allow your partner to see this sheet.



Sheet 2

Your partner will describe to you how to move the pattern blocks from their positions on the left to their proper positions in the shape at the right.

Do not look at your partner's sheet.





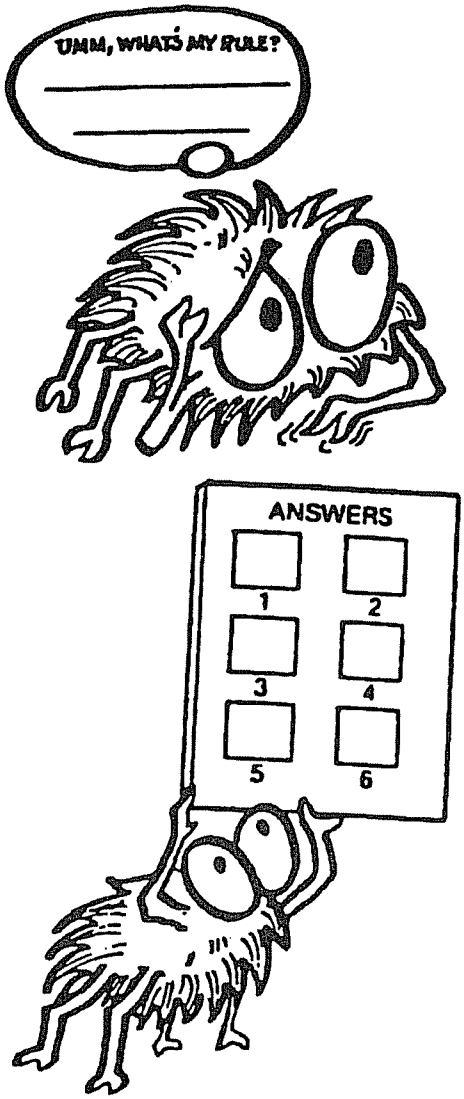
Thomas C. O'Brien

WOLLYGOGGLES
AND OTHER CREATURES

Problems for Developing Thinking Skills

Section Selections

1 Number and Number Concept Creatures
2 More Number Concept Creatures
3 Word Creatures
4 Figural Creatures



Boppets

Name _____

All of these are boppets.

819	235	101	347	426	145	246

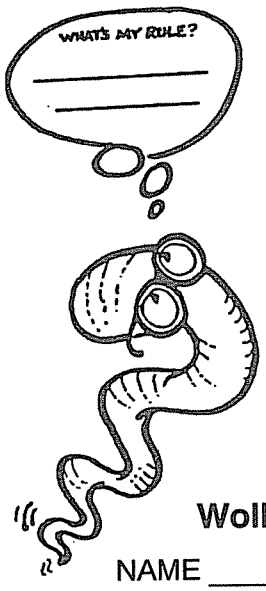
None of these is a boppet.

333	405	216	510	111	142	132

Which of these are boppets?

1.	304	617	Both	Neither
	A	C	F	D
2.	909	516	Both	Neither
	I	G	C	B
3.	437	336	Both	Neither
	B	A	H	C
4.	374	945	Both	Neither
	E	I	D	F
5.	283	607	Both	Neither
	A	E	I	D
6.	224	125	Both	Neither
	H	E	G	B

Make your own boppets!



Wollyfloggles

NAME _____

Each of these is a wollyfloggle.

RAM	BAT	LAG	PIN	BAN

None of these is a wollyfloggle.

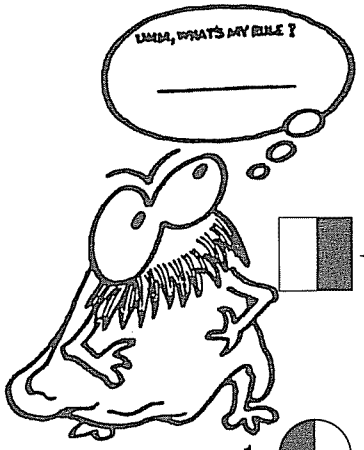
MADAM	BAR	MOM	LOT	SIT

Which of these is a wollyfloggle?

1.	HOT	CAN	Both	Neither
	C	D	E	F
2.	ANNA	POP	Both	Neither
	I	J	K	L
3.	EVIL	SAP	Both	Neither
	A	B	C	D
4.	MAMA	OIL	Both	Neither
	D	E	H	G
5.	POT	TON	Both	Neither
	B	H	I	J
6.	SAT	PAN	Both	Neither
	E	B	C	D

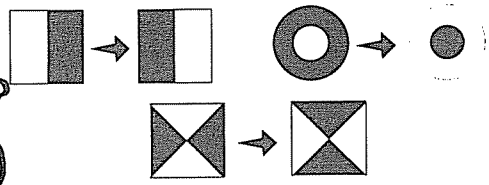
Make your own wollyfloggles!

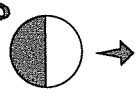


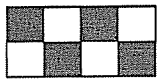


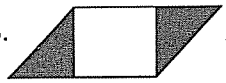
Wigglydorfs

All of these are Wigglydorfs.

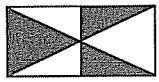


1.  _____

2.  _____

3.  _____

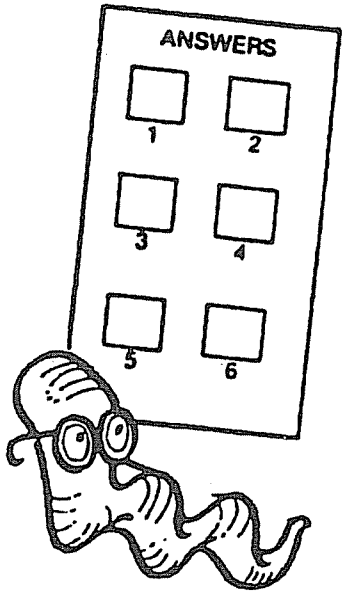
4.  _____

5.  _____

6.  _____

Make your own Wigglydorf!

7.  _____



▲ Introducing our New Ontario Mathematics *Abacus* & *Gazette* Editors

Frances Schatz, *Abacus* Editor

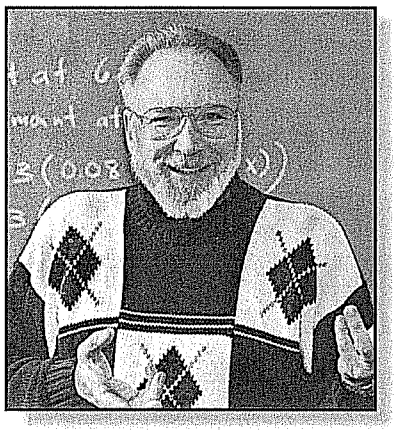
Frances began her teaching career at Oshawa Central Collegiate where she taught grades nine to eleven mathematics. Soon after, she became a tutor to private students as well as shut-ins who were on The Waterloo County Board of Education home instruction list.

In 1981, she became an associate with the Independent Learning Centre (ILC). Her responsibilities included marking 120 correspondence lessons each month and organizing meetings with 40 private students. One of her colleagues has noted that "her success as a private tutor defies belief, with a success rate approaching one hundred percent." She also provided Braille transcription, tactiles, and tapes for blind students, and coached a number of students for mathematics competitions.

In 1988, she successfully completed two refresher courses in mathematics teaching at the Faculty of Education, University of Toronto. In 1989, she won the Descartes Teacher Recognition Award presented by the University of Waterloo. During the presentation of the award, Frances was described as a "remarkable person and a truly innovative instructor whose skills include assisting and motivating all kinds of students."

During the OAME '95 Annual Mathematics Conference, Frances was interviewed by the K-W Record about her philosophy of mathematics education. To appreciate her full commitment to helping students achieve success in mathematics, one needs only to read the following quote from that interview:

"Every student deserves a teacher or tutor who has made a conscious decision to teach for understanding, to train students to approach problem-solving with



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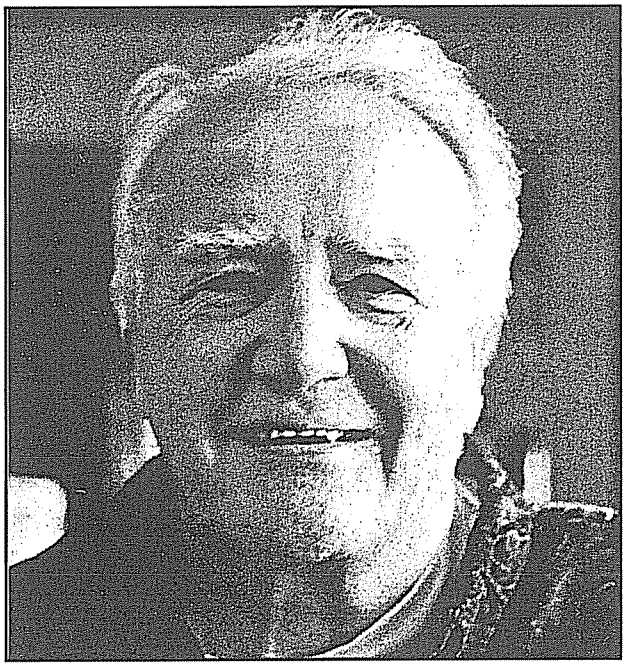
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confidence, and to help students develop number sense and a feeling for theory."

Frances now assumes responsibility for editing the Abacus, the elementary portion of the Ontario Mathematics *Gazette*. Members of OAME are fortunate to have an editor of such high quality. Best wishes, Frances!!

RON SAUER, CO-ORDINATOR OF MATHEMATICS, SCIENCE AND TECHNOLOGY
THE WATERLOO COUNTY BOARD OF EDUCATION



John Egsgard, *Gazette* Editor

Most of you will know John from the many texts he has co-authored and from his presentations at OAME and NCTM meetings. His excellence as a teacher was recognized by a Rene Descartes Medal in 1968.

John, in his years as an executive member of the Ontario Association of Teachers of Mathematics and Physics, was instrumental in the success of the first NCTM Regional Meeting to be held outside the United States (Toronto, August 1960). This led to a continuing association with NCTM resulting in his becoming the first Canadian Director and the first Canadian President. Throughout his years of leadership with NCTM he was successful in initiating policies which made it easier for classroom teachers to serve on NCTM committees and as Directors.

It is a measure of John's commitment to OAME that he ran for office when the organization was formed in



1973 and became the first President-Elect. That year was also his first year of marriage. Lyn and John met through NCTM and his year as President of OAME coincided with the birth of their first child - exciting times!

John has also been active with the International Congress on Mathematics Education, attending all seven of the International meetings (held like the Olympics, every 4 years) and serving on the Executive Committee of the Quebec meeting in 1992.

While involved in all these organizational activities, he considered teaching was his prime responsibility and delayed his retirement as long as possible.

John is an enthusiastic skier and was coach of his school's cross country team until last year. He enjoys a good wine and in recent years has been the Area Secretary for the Opimian Society, organizing wine tasting experiences for its members.

I know that, as usual, John will undertake the task of editor with a dedication that will continue the great tradition of previous editors. It is a pleasure to welcome John back to a leadership role in OAME.

DAVE ALEXANDER
EXECUTIVE DIRECTOR, OAME
