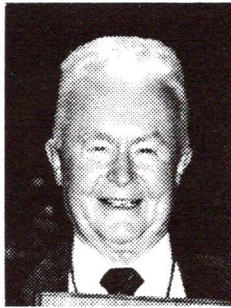## From the Editor

I would like to take the opportunity to congratulate our teachers who are teaching students mathematics and science who are doing a super job according to a report in the *Edmonton Journal* in February. A recent world-wide study has shown that Alberta's Grade 12 students are among the world's strongest in science and above average in mathematics. Students in Grades 4 and 8 are achieving outstanding results in mathematics.

We must not forget the teachers who teach mathematics in other grades. They, too must be doing a superior job to prepare students for the teachers who receive them in Grades 4, 8 and 12.

Despite large classes and decreased budgets, Alberta teachers have proven that they can get the job done. They can be justly proud.

I hope our government and the general public are prepared to recognize and reward this superior performance. ▲

—*Art Jorgenson*

ARA Resolutions: MCATA and ECEC

MCATA is submitting the following resolutions to the 1998 ARA. If any of you are ARA delegates, we encourage your support for these resolutions.

Resolution 1

BE IT RESOLVED, that The Alberta Teachers' Association urge post-secondary institutions to accept Mathematics 33 (or Applied Mathematics 30) as an entry course for students other than those entering a mathematics intensive field of study and where Mathematics 30 is not also presented.

Rationale: The caliber of Mathematics 33 is more than equivalent to other courses listed as acceptable in subjects in the D category. Credit in Mathematics 33 now includes a provincial diploma examination. Currently,

students may use Mathematics 33 as a fifth subject for admission, with some restrictions, at both the University of Calgary and the University of Lethbridge.

Resolution 2

BE IT RESOLVED, that the teacher members of The Alberta Teachers' Association Curriculum Committees be representatives of the ATA's Specialist Councils, and where possible be current executive members of those Councils.

Rationale: Much of the work of The Alberta Teachers' Association Curriculum Committees is current and should align with the focuses of Specialist Councils. To ensure accurate and ready input on issues, and support effective communication between curriculum committees and specialist councils, ensuring appropriate teacher representatives on curriculum committees is desirable and reasonable.

The Early Childhood Education Council (ECEC) is submitting the following resolution for which we would also encourage your support.

Resolution

BE IT RESOLVED, that an electoral ballot be prepared for the 1999 ARA which would amend the Administrative Procedures to allow the Specialist Councils to name one voting representative to the ARA.

Rationale: As part of their advocacy mandate, Specialist Councils should be given the opportunity to present informed opinion on matters related to curriculum. A representative from each of the councils would enhance the debate on curriculum issues. ▲

—*Florence Glanfield*

Promoting Mathematical Literacy

Sometime this spring, PBS will be airing seven one-hour programs in a series called "Life by the Numbers." The copyright is such that you can tape the program off the air and use it for six years after the broadcast date. The television series is produced by WQED Pittsburgh and it answers these questions "Why do I have to study this stuff?" and "When will I ever use this?" Keep a look out for the broadcast dates in your community. ▲

—Florence Glanfield

Mathematics Education Month: April

April is Mathematics Education Month. How do you and your class or you and your school intend to celebrate mathematics and mathematics education during this special time? Mathematics is a vital part of all of our lives. Share your achievements with MCATA and enter to win one of the following fabulous prizes:

- *School Prize.* $200 of MCATA/NCTM gift certificates. (This prize is for the most enriching mathematics related event carried on throughout an entire school.)
- *Individual Teacher Prizes.* $100 of MCATA/NCTM gift certificates. (This prize is for the most enriching mathematics related event carried on in an individual classroom. There are three categories for submission: high school, junior high and elementary.)

All entries should include a complete description of the event including the activity or activities, who was involved, the duration of the event and pictures, if possible. Please send your completed entries to Cynthia by May 30, 1998. Winning entries will appear in a fall MCATA publication. Cynthia Ballheim, 612 Bonavista Drive SE, Calgary, T2J 0M5; phone 777-8927 (bus.), fax 777-7229 or e-mail ballheimcj@aol.com. ▲

—Cynthia Ballheim

Grant Applications
NCTM Regional Services Committee

Applications for NCTM grants to Affiliate Groups need to be in by May 1, 1998. We will be meeting in June to consider the applications. These grants can be given for professional development, special needs and new affiliate start-ups. Guidelines and an application form are included in the *Affiliated Group Handbook.* Contact either your Canadian representatives, Carolyn or Ivan, if you require information.

- Carolyn Gould, 915 Oak Avenue, St. Lambert, QC J4P 2A1, phone (514) 672-4010 (bus.), (514) 465-5820 (res.), fax (514) 465-8809 or e-mail sb-.gould.carolyn@prologue.qc.ca
- Ivan Johnson, 3427 Panorama Ridge, Whistler, BC V0N 1B3, phone (604) 932-3675 (res.) or e-mail i_john@whistlernet.com.

Canadian Regional Conferences

1998 Alberta—Calgary
2000 Nova Scotia—Halifax (approved)
2001 Saskatchewan—Saskatoon (approved)
2002 Alberta (application made)

The Mathematics Council of The Alberta Teachers' Association should be applauded for hosting more regional conferences than any other province. Well done, MCATA. ▲

A point of view can be a dangerous luxury when substituted for insight and understanding.

—Marshall McLuhan

The Samuel Conrad Method

Sam Conrad, a former student in my Mathematics 31 IB (International Baccalaureate) class, is presently in a pre-engineering year at the University of Lethbridge. Previously, I had not taught students to solve absolute-value equations using his method, but now I shall! It is a logical extension of our approach to solving radical equations and if students can benefit by utilizing previously learned skills, then perhaps Sam's method takes some mystery out of solving absolute-value equations.

—Ken May, Winston Churchill High School

Traditionally, absolute-value problems had to be solved by essentially solving two equations. Each equation had to consider the possible outcomes generated by the absolute value symbol. This method works no doubt, but an alternate approach can be used to determine the results of an expression. Normally, one would solve the following problem by performing the following steps.

$$(x - 2) = 4$$

1. $x - 2 = -4$ 2. $x - 2 = 4$
   $x = -2$ $x = 6$

Since the outcome is always positive or negative, squaring both sides of the equation automatically turns both sides into positive expressions. The problem is simply solved by use of quadratics.

$$(x - 2) = 4$$

$$x^2 - 4x + 4 = 16$$
$$x^2 - 4x + 12 = 0$$
$$(x + 2)(x - 6) = 0$$
$$x = -2 \quad x = 6$$

This method of squaring can simplify problems quite significantly.

$$(2 - x) = 2x$$

1. $2 - x = 2x$ 2. $2 - x = -2x$
   $2 = 3x$ $2 = -x$
   $x = 2/3$ $x = -2$

One could simply solve the same problem in this fashion.

$$(2 - x) = 2x$$

$$4 - 4x - x^2 = 4x^2$$
$$3x^2 + 4x - 4 = 0$$
$$(3x - 2)(x + 2) = 0$$
$$x = 2/3 \quad x = -2$$

This method follows naturally from the algorithm used to solve radical equations.

Thanks go to Kenneth May and Dennis Connolley, both from Lethbridge. ▲

The Show-Me Project

The Show-Me Project, funded by the National Science Foundation, supports a National Center (Show-Me Center located at the University of Missouri-Columbia) and five Satellite Centers for disseminating information and providing professional development related to five standards-based, middle-grades mathematics curricula:

- *Math Thematics* (STEM) at the University of Montana;
- *Connected Mathematics Project* (CMP) at Michigan State University;
- *Mathematics in Context* (MiC) at the University of Wisconsin;
- *Middle-School Mathematics Through Applications Project* (MMAP) at the Institute for Research on Learning; and
- *MathScape*, Education Development Center.

The Show-Me Project provides resources to learn about these standards-based, middle-school mathematics curricular options and supporting structures which exist to facilitate their implementation in classrooms.

A Web site (http://showmecenter.missouri.edu) has been established to provide current information about the curricula and to provide one means of initially exploring and comparing the five curricula. For more information contact Barbara Reys, project director, Show-Me Center, 104 Stewart Hall, University of Missouri, Columbia, MO USA 65211; phone (573) 884-2209, fax (573) 882-4481, e-mail center@showme.missouri.edu or visit the Web site. ▲

CMASTE
Connecting with Alberta's New High School Mathematics Curriculum, June 22–24, 1998

CMASTE at the University of Alberta is offering two opportunities for mathematics teachers this year!

The purpose of this three-day workshop series is to help teachers prepare for the new programs. Topics will include: "Measurement in Applied Mathematics," "Mathematics and Spreadsheets," "Understanding the Pure and Applied Mathematics Curriculum," "Statistics," "Geometry of a Sphere," "Spreadsheets for Novices," "Sequences and Series," "Matrices," "Linear Programming," "Graphing Calculators for Novice Users" and "Geometer's Sketchpad."

For more information and costs, please contact Elaine Simmt at 492-0881, fax at 492-9402 or e-mail elaine.simmt@ualberta.ca. ▲

Get Ready For a Monumental Event—WLME 4

Join students and teachers around the world for a day of mathematical exploration in NCTM's fourth annual World's Largest Math Event (WLME) on Thursday, April 30, 1998. This year's theme, "Landmarks: Seeing the World by Numbers," focuses students' attention on the mathematics behind the famous, as well as local, human-made structures all around them.

This year's event, which closes out Mathematics Education Month (April), features activities organized around different landmarks. As they analyze the Sphinx, students are encouraged to use various measurement tools to conceptualize the size and the architectural wonder of that monument. The Pyramid of Khufu (Cheops) serves as a basis for a series of geometric activities. Other landmarks highlighted include the Statue of Liberty and the Golden Gate Bridge.

For the first time this year, supplemental activities will be available if you want to expand the day into a teaching unit. The supplemental activities are posted on NCTM's Web site, http://www.nctm.org, or are available through NCTM's Fax on Demand service, 1-800-220-8483, document #216. The WLME activity booklet is also available through Fax on Demand—request document #215.

As you plan your event activities, don't forget to contact your local media early and often. Media coverage can help build community awareness and support for your mathematics education efforts. A press release and a phone call from mathematics teacher Sarah McGill enticed reporters from the local *Times-Mail* to attend St. Vincent de Paul School's (Brownstown, Indiana) event and resulted in a photo and article on the front page. "It helps if you have something that makes a good picture," says McGill.

The level of media success may vary from school to school and community to community, but WLME is sure to be a hit within your school. To help you stand out in busy reporters' minds, "It's important to establish a good relationship with individual reporters," says Tom Lewis, a Grade 5 teacher in Moline, Illinois, and incoming NCTM Board Member. Lewis's school was covered in her local newspaper, the *Quad-City Times*. And be sure to prepare your students for the experience before reporters arrive. McGill advises, "Have the kids think about what they are doing and why beforehand, because the reporters ask them a lot of questions." See the back of the WLME activity booklet for tips on getting media coverage for your school.

Photographs of your event will be considered for publication in an upcoming NCTM *News Bulletin*. To share photos and negatives (no Polaroids please) of your WLME activities, please label them and send to NCTM *News Bulletin*, 1906 Association Drive, Reston VA USA 20191-1593. Include your name, address, telephone number and e-mail address, if applicable, with all submissions. Please make sure your school grants permission for the photos to be published. Photos will not be returned. ▲
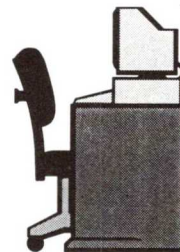
JRME Is Online Free During Special Introduction

To celebrate the online debut of NCTM's research journal, the *Journal for Research in Mathematics Education* (*JRME*), NCTM is offering free access to the January, March and May 1998 issues.

This special introductory period is a one-time opportunity for you to see *JRME* online. Prior to subscribing to the electronic version of the journal, you can review its contents—articles on research concerning mathematics education; reports of case studies, surveys and experiments; and many departments such as brief reports, a forum for researchers, reviews and so on. You can also search for articles by title, author, topic, keyword, or other criteria using our new natural-language search engine powered by Infoseek. To facilitate referencing, the "pages" of the Web version will correspond with the pages of the printed journal.

A big advantage of the e-version is its speed. You'll be seeing the issue "hot off the Web." Mathematics educators outside the United States, in particular, can now receive copies promptly rather than wait for the mail. The January 1998 issue is already online. To view it, visit the Web site, http://www.nctm.org, and select "Publications," then "*JRME* Online."

Starting in the July 1998 issue, access to the online version will require a password. NCTM individual and retired members may add the *JRME* e-version at US$18 (the standard price for adding any additional journal subscription to you membership). Student members can add it for US$9. Those who already subscribe to the *JRME* can choose between receiving the printed journal or the online version or receive both for the additional US$18 fee. Stay tuned for more information about this new NCTM service, including rates for institutional members. ▲

Join In Mathematics Education Dialogues

We've got a lot to talk about in mathematics education—among other things, the teaching of mathematics is grabbing headlines in Canada and the U.S. To facilitate a constructive discussion, NCTM is launching a brand new publication, *Mathematics Education Dialogues*. Two pilot issues, designed to spotlight crucial issues in mathematics education and encourage responses from NCTM members, will be mailed with spring *News Bulletin*s. Check NCTM's Web site, http://www.nctm.org/dialogues, to review and respond to the first issue's topics and be among the first to join the dialogue.

The Excellence in Teaching Cabinet grant program awards grants each year of US$1,000 and up to US$500 worth of Curriculum Associates, Inc., materials to three innovative American or Canadian K–8 teaching projects that use media, print and software. Send proposals by April 30, 1998, to Curriculum Associates, Excellence in Teaching Cabinet, 153 Rangeway Road, North Billerica, MA USA 01862. For more information, fax a request marked "Excellence in Teaching Cabinet Official Rules" to (978) 663-0521 or see the Curriculum Associates Web site, http://www.curriculumassociates.com/cabinet. ▲

Pathfinder Conference

The details of the 8th Annual Pathfinder Conference are as follows:

Theme: "Lifelong Learning Beyond the 20th Century"
Dates: April 16–17, 1998
Location: Coast Plaza Hotel, Vancouver, B.C.
Cost: $300 (early registration)

This year we are running six concurrent tracks:

- Technology in Education and Training
- Industry and Government Initiatives in Education and Training
- Technical Sessions for Pathfinder Users
- Curriculum Development Sessions
- Pathfinder Sessions for New and Non-Users
- A "French-Only" Track (with a combination of the above English sessions)

The 8th Annual Pathfinder Conference is the conference dedicated to technology solutions for today's educators and trainers. The 1998 conference will bring together users, leading content developers and companies who are partnering with Pathfinder to develop seamless solutions for lifelong learning.

For more information, please contact Elaine Murphy, conference coordinator, Pathfinder Learning Systems Corporation, 133 Richmond Street W, Toronto, ON M5H 2L3; phone 1-888-768-8328 (toll free in US and Canada), (416) 361-1293, fax (416) 361-3555, e-mail emurphy@pathfinder.ca. ▲

MCATA 1999 Conference

"Mathematics in Harmony with the New Millennium" is the theme of the MCATA 1999 annual conference to be held at the beautiful Jasper Park Lodge in Jasper, October 22–23, 1999. The conference begins Thursday evening, October 21 and closes on Saturday at noon. The program committee is well on its way to putting together an exciting program for you. We hope that some of you will consider making a presentation. It is as easy as completing a speaker proposal and sending it to any one of the program cochairs.

Conference Cochairs

- Elaine Manzer, 624-4221; manzere@prsdnet.ab.ca
- Betty Morris, 441-104; morrisb@ecs.edmonton.ab.ca
- Klaus Puhlmann, 723-4471; klaupuhl@gyrd.ab.ca

Program Cochairs

- Cynthia Ballheim, 228-5810; ballheimcj@aol.com
- Betty Morris, 441-6106; morrisb@ecs.edmonton.ab.ca
- Sandra Unrau, 777-6920; sunrau@cbe.ab.ca

Plan to attend this important event—mark your calendar now. We will do our best to make this conference a memorable event in your professional lives. ▲

"Connecting with Alberta's K–Grade 9 Mathematics Curriculum"
August 17–20, 1998

This event is still in the planning stages, but will be similar to the four-day workshop of August 1997. Contact Florence Glanfield at 489-0084; fax 492-9402; or e-mail glanfiel@gpu.srv.ualberta.ca for costs and information. ▲

Teachers of Mathematics In the Edmonton Region

A great idea. How about trying it in your area? A group of teachers from the Edmonton Metro Region met at the Edmonton Inn on March 2, from 5–7 p.m. to discuss issues that are of concern to teachers in their respective schools. "Teachers of Mathematics in the Edmonton Region" (TERM) has been meeting since December 1977. Representatives from Morinville, Fort Saskatchewan, Devon, Sherwood Park, St. Albert, Leduc, Beaumont, Onoway, Spruce Grove and Ardrossan attend the informal meetings when they can. The next meeting is Monday, May 4, at 5 p.m. at the Edmonton Inn. For more information, contact Donna Chanasyk at 459-4405. ▲

—*Donna Chanasyk*

Interesting Course Offered

EDES 501: Linking Curriculum and Assessment in Mathematics Education (3 credits)

Dates:	August 6–14, 1998
Times:	MTWRF 8:30 a.m.–4:00 p.m.
Place:	934 Education South, University of Alberta
Instructor:	Lynn Gordon Calvert, Assistant Professor, Elementary Education

Changes to the curriculum and methods of instruction in mathematics have raised issues about assessment practices in mathematics. This course will focus on alternative assessment practices linked to the Western Canadian Protocol and to instruction using the new recommended resources. This course is offered as an EDES (elementary/secondary) course and is suitable for teachers of Grades 4–9.

The following are the general topics for the course:

- Purposes of Assessment
- Rationale for Changes to Assessment Practices
- Alternative Assessment Practices (for example, journal writing, portfolios, open-ended and multiple-approach problems, self- and peer-assessment and so on)
- Communicating Performances to Students and Parents

For more information, please phone the instructor at 492-4273 (ext. 234) (bus.) or at lynn.gordon@ualberta.ca. ▲

Mini-Conference: Calgary Area Elementary Math/Science Symposium

Division I: April 22; Division II: April 23
Registration deadline: April 9, 1998

There will be a choice of two sessions for the evening. The cost is $13.50 and includes a dinner of lasagna, salad and dessert.

Session A	4:30–5:45 p.m.
Supper	5:45–6:45 p.m.
Session B	6:45–8:00 p.m.

There are about 11 sessions to choose from for each time period. Topics range from math/science connections to specific curriculum topics in both disciplines. Contact Cathy Taylor for information and registration, phone 230-1431. This has been planned in conjunction with the ATA Science Council and the Calgary Consortium for Elementary Science. ▲

—*Sandra Unrau*

Jasper Elementary School
Kids' Mega Math Convention

Last November I represented our school at the MCATA conference in Edmonton. After attending an excellent session entitled "Connecting Literature and Math" by Susan Galloway and Pat Lore, I presented the idea of a school-wide math conference to our staff. (I'm lucky enough to work with people who greet my wild ideas with enthusiasm.) The seed was planted and all I had to do was wait!
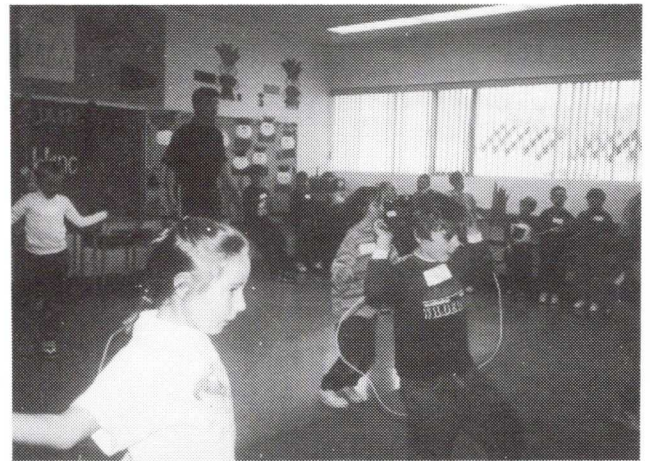
In January I reminded the staff of their hasty promise, and asked them to start thinking of an idea for a session. I wanted them to keep it in mind while we were in the city for teacher's convention so they could look for ideas and get any supplies they might need. I also made a list of possible ideas and books to help them. We decided to run our convention on the morning of a staff-meeting Friday. The morning was divided into three 40-minute sessions with a recess break after the second session.

Two weeks before the conference each staff member had a session in mind and had written up a short description on computer disk. I then printed up a list of sessions for the students to choose from. Students got to rate their top five choices.

Some sessions were K–6 but others were suitable for a specific age range. The staff came up with amazing ideas. There was everything from "Roman Numerals" to "Skipping"! Specialist teachers were just as enthusiastic as classroom teachers and the entire school was involved. Klaus Puhlmann offered to do parent sessions and his audience was even more excited than the children! A local hotel was asked to provide a snack for the day of the convention and the children had giant cookies as a special treat.

Although it was set up as a math convention, this idea would lend itself to any subject. It was a great way to spotlight a topic and create school spirit in the dark days of February! ▲

—K. Byers, karebyer@gyrd.ab.ca

The happiest people don't necessarily have the best of everything:
They just make the best of everything.

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