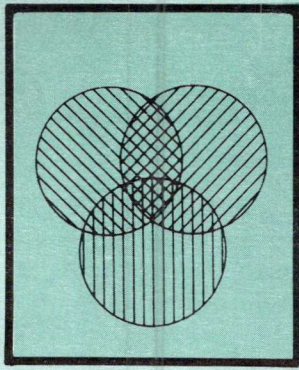


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Mathematics Council NEWSLETTER

The Alberta Teachers' Association

Providing leadership to encourage the continuing enhancement of teaching, learning and understanding mathematics.

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President's Message

These are exciting times for the Mathematics Council of the Alberta Teachers' Association (MCATA). MCATA members are working on many interesting endeavours: planning symposia, writing position papers, submitting grant proposals, inservicing, making suggestions for the National Council of Teachers of Mathematics (NCTM) Bookstore and organizing conferences. Now is an ideal time to seriously consider volunteering your (or someone else's) time to work on the Council.

MCATA's link with NCTM remains strong, and we are looking forward to the NCTM Calgary Leadership conference in July and the MCATA/NCTM Regional Conference in Edmonton in November. The preview booklet for the Edmonton conference will be coming out soon, and we know that you will be pleased with the program. The program committee has been working overtime to bring you the most exciting conference ever!

If you are not already an NCTM member, consider joining the more than 100,000 educators and institutions dedicated to improving the teaching and learning of mathematics. Learn more about NCTM membership benefits at www.nctm.org/membership/3-benefits.htm. A wonderful new benefit is that members can now purchase and download articles from journals to which they do not subscribe. Just sign in to e-resources (<http://my.nctm.org/eresources/>) and make a request! NCTM and MCATA are a winning combination. Make a

difference in mathematics education by becoming involved in both!

It is time for you to nominate a colleague for the Mathematics Educator of the Year Award. More information is included inside this issue. Please give a colleague the recognition he or she deserves!

—Cynthia Ballheim

From the Editor's Pencil

Have you ever thought about being a presenter at an MCATA conference but rejected the idea because you're "just a classroom teacher"? Now is the time for you to rethink that position.

I, too, was one of those reluctant people who think they don't have much to say. However, with encouragement from MCATA and the support of a colleague who agreed to copresent, I took the plunge and found out that presenting is fun! My copresenter and I are not experts, but we were able to share a project we had worked on together at our school.

We are all looking for new, interesting and fun ways to involve our students in the beauty and joy of math. Now it is your turn to let us know what has worked for you!

—Anne MacQuarrie

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AISI Continues to Get Government Support

The February 2003 issue of the ATA's *PD E-News* (available at www.teachers.ab.ca/publications/newsletters/pdchair-news/) reports that the minister of learning has announced the continuation of Alberta Initiative for School Improvement (AIS) funding for another three-year cycle. This announcement raises the issue of how current projects will be affected: can current projects be extended, and what constitutes a new project?

Alberta Learning will soon provide more information to clarify its expectations for the next phase of AIS. The Alberta Learning website recognizes that projects emphasizing professional development and innovative instructional techniques have been the most successful (see www.learning.gov.ab.ca/news/2003/January/nr-AISConference2003.asp).

It is important that ATA locals and their PD committees get involved in the consultation process for this funding. PD chairs are encouraged to contact AIS leaders in all jurisdictions to discover how teachers are being involved in the development of project proposals.

Alberta Learning Update

- The French and English projects for Pure Mathematics 30 and Applied Mathematics 30 for the second semester are available on Alberta Learning's website at www.learning.gov.ab.ca/k_12/testing/diploma/projects/default.asp. Teacher notes can also be found on the website, and the sample solutions can be found on the Alberta Learning extranet.
- The exam manager's reports for both Pure Mathematics 30 and Applied Mathematics 30 will be available on the extranet in April.
- The information bulletins for Pure Mathematics 30 and Applied Mathematics 30 will be reviewed in the spring. The updated bulletins will be available in August 2003.
- Current plans are for June 2003 diploma examinations to be released (except for Mathematics 33), but a final decision has not been made. The last administration of Mathematics 33 is August 2003.
- The French-language version of the online Elementary Mathematics Resource (Grade 6) is under development. *Mathématiques de 6e année* will be posted on the LearnAlberta.ca website in summer 2003.

Mathematics Educator of the Year Award

Do you know a teacher who does an outstanding job in the math classroom? This is your opportunity to give that teacher the recognition he or she deserves. MCATA will once again recognize the Mathematics Educator of the Year at the MCATA/NCTM conference in Edmonton in November. The deadline for nominations is **July 15, 2003**.

Nominations must include the following:

- Name, address and phone number of the nominee
- Name, address and phone number of the school at which the nominee has taught for the past year
- Grade taught by the nominee in the past year
- Letter(s) from an administrator and/or colleagues who want to nominate the teacher
- A detailed statement of why the nominee deserves to be recognized as the Mathematics Educator of the Year

Send your nomination to Lorraine Taylor, 10 Heather Place, Lethbridge T1H 4L5; e-mail lorraine.taylor@lethsd.ab.ca.

Senior High Math Teachers, Take Note!

According to the February 2003 issue of *PD-E News* (available at www.teachers.ab.ca/publications/newsletters/pdchair-news/), Alberta Learning is considering making sweeping changes to the provincial diploma examinations in science and math. These changes could include minimizing or eliminating the written components of the exams. No changes are planned for this year, but they could be realized as soon as 2004. Alberta Learning has not announced whether it will consult with teachers before implementing the changes.

Does eliminating the written components of the diploma exams seem like a good idea to you? Would you support this change under the right conditions, or do you think it will undermine the effectiveness of the diploma exams as an authentic form of assessment? If you have any comments or suggestions, send them to anne.macquarrie@shaw.ca. Your comments could be published in the next issue of the *Mathematics Council Newsletter*.

MCATA/NCTM Regional Conference

“Taking Mathematics to the Nth Degree”

November 20–22, 2003

Shaw Conference Centre, Edmonton

The program for the MCATA/NCTM Regional Conference is developing nicely. Participants will have a good selection of speakers from which to choose. Because of space limitations, we have changed the traditional format: instead of offering a keynote session that everyone attends at one time in one place, we have decided to have a series of noteworthy speakers. Throughout the conference, 15 important presenters will speak on fascinating topics for teachers of all grade levels. In addition to these major sessions, the conference will offer regular sessions, workshops and minicourses. The NCTM will soon be releasing a preview booklet.

The major speakers for the conference include the following:

- Thomas Kieren, University of Alberta, “Teaching in the Middle: Using Interactive Intelligence and Collective Understanding”
- Brent Davis, University of Alberta, “Emergent Insights into Mathematical Intelligence from Cognitive Science”
- Keith Devlin, Stanford University, “The Evolutionary Origins of Mathematical Thinking Ability”
- James Schultz, Ohio University, “Technology: The Good, the Bad, and the Ugly”
- Trevor Calkins, Power of Ten Educational Consulting, “Teaching the Big Ideas”
- David Schwartz, author, “Students, Teachers, Authors: A New Golden Triangle for Mathematical Learning”
- Kanwal Neel, British Columbia Association of Mathematics Teachers (BCAMT), “Getting Ready to Teach Math to the Nth Degree!”
- Claire Ferguson, artist and author, and Helaman Ferguson, sculptor and mathematician, “Mathematics in Stone and Bronze”
- Dale Burnett, University of Lethbridge, “Tools and Notation: A Symbiotic Relationship for the Future”
- John Van de Walle, Virginia Commonwealth University, “Let Kids Be the Sense Makers, Not You! Planning for Problem-Based Lessons”
- Cathy Seeley, NCTM president-elect, University of Texas, “Personal Leadership to Transform Your Classroom”

I would like to thank the members of the program committee for all their hard work enlisting speakers and encouraging local educators to become involved as presenters. Martina Mentz, Janis Kristjansson, Jerry Varty, Geri Lorway, Elaine Simmt and Mike

Fulton have all submitted proposals. If you are interested in speaking and have not sent in a proposal, e-mail me at sunrau@cbe.ab.ca or sunrau@telus.net. We will need backup sessions in case of cancellations.

See you in November!

—Sandra Unrau

MCATA Perpetual Calendar

The perpetual calendar, given out at past MCATA conferences, has come in handy in my classroom. For example, an Applied Mathematics 20 question reads,

A company pays all its employees weekly. Is it possible that the company ever issues pay cheques more than 52 times a year or fewer than 52 times a year? Explain.

I duplicated the calendar for the class, and we assumed that employees were paid every Friday. I assigned certain years to certain rows of students and had the students count the number of Fridays in each year. Eleven years had 52 Fridays and three had 53 Fridays.

—Donna Chanasyk

MCATA Excellence in Mathematics Award Certificates

If you were unable to attend the MCATA conference in Canmore and would like two certificates recognizing excellence in mathematics to present to your students, e-mail Donna Chanasyk at donnajc@telus.net. Please include your mailing address with your request.

MCATA Elections

The positions of vice-president, secretary and treasurer of MCATA are open for the 2003/04 school year. If you would like to nominate an MCATA member for one of these positions, complete and submit the form included with this newsletter by **May 1**.

Summary of MCATA Executive Meeting

An MCATA executive meeting was held November 29–30, 2002.

Agenda items included reports from the Canmore conference and plans for the Edmonton conference in November 2003, as well as for future conferences. The Edmonton conference will be jointly held with the National Council of Teachers of Mathematics (NCTM) at the Shaw Conference Centre. More information will be posted on the MCATA website (www.mathteachers.ab.ca) as it becomes available.

Guest presenters Ted Lewis and Andy Liu, from the University of Alberta, outlined their activities relating to the K–12 programs in our schools: math fairs, the Alberta High School Mathematics Competition, the ESSO-CMS Alberta regional summer camp, and *Pi in the Sky* and *Mudpie* magazines. Some of these activities are cosponsored by the Pacific Institute for the Mathematical Sciences (PIMS). MCATA has established an ad hoc committee to determine the extent to which MCATA should become involved in the outreach programs of the U of A and PIMS.

More time was requested to make changes to the application form for the Dr. Arthur Jorgensen Chair Award.

NCTM publications will be made available on the MCATA website. Teachers will be able to access NCTM publications from Helen McIntyre (hmcintyre@rockyview.ab.ca) during the year.

A subcommittee was established to apply for an NCTM grant for a project to provide a mentoring network for beginning teachers or teachers whose assignments have recently changed.

Many concerns have been voiced about the number of errors in *Addison-Wesley Applied Mathematics 12*. A letter expressing this concern has been sent to Pearson Education.

Klaus Puhlmann, editor of *delta-K*, has informed MCATA that he will resign from the position in 2003 but will be willing to help the new editor in compiling the next issue.

The forest-green vests sold at the Canmore conference are available for \$45 in sizes S, M, L, XL and XLL. Contact Donna Chanasyk (donnajc@telus.net) if you want to purchase one.

The table officers decided to meet early in 2003 to make changes to the *MCATA Duties and Procedures Handbook*.

Subsequent MCATA executive meetings were scheduled for March 7–8, 2003, in Edmonton and May 23–24, 2003, in Calgary.

PIMS/U of A Math Fair

Close to 700 elementary and junior high students from 25 schools visited the Pacific Institute for the Mathematical Sciences (PIMS)/University of Alberta Math Fair on November 5, 2002. This all-day event, held in Dinwoodie Lounge in the U of A's Students' Union Building, was sponsored by PIMS and presented by Venera Hrimiuc and Ted Lewis's Math 160 students. In the other half of the lounge, Andy Liu ran a problem-solving session. The students spent about two hours at the event, splitting their time between the math fair and the problem-solving session.

The math fair is part of the curriculum of Math 160, a course for elementary education students. There were 26 hands-on puzzles for the visiting students to try. The puzzles were all mathematical and were designed so that the students did not need to solve them with a pencil and paper—just their wits. Although the puzzles were aimed at K–6 students, many of the junior high students also found the puzzles entertaining. Part of the challenge for the university students was adapting their puzzles on the fly to a variety of grade levels. They met the challenge with great success.

In his problem-solving session, Andy taught the students some mathematical games. Of course, many were willing and eager to play against Andy. He never lost, and the problem-solving session was appropriately dubbed the “Math Unfair.”

The next math fair (and “math unfair”) will be held in spring 2003. Dates are to be announced.

A booklet about math fairs is available through the U of A branch of PIMS (contact Shirley Mitchell). If you are interested in holding your own math fair or would like to attend a workshop on math fairs, contact Andy or Ted (in Edmonton) or Indy Lagu or Sharon Friesen (in Calgary):

Ted Lewis: tlewis@math.ualberta.ca

Andy Liu: al3@gpu.srv.ualberta.ca

Shirley Mitchell (PIMS): shirley.mitchell@ualberta.ca

Indy Lagu: ILagu@mtroyal.ab.ca

Sharon Friesen: sharon.friesen@home.com

TERM Meeting Update

The next Teachers of Mathematics in the Edmonton Region (TERM) meeting will be held at 5:00 p.m. on Monday, May 5, at Paul Kane High School in St. Albert. If you would like to attend and need more information, contact Donna Chanasyk at donnajc@telus.net.

Nominations for MCATA Executive Positions

Nominations for the following offices for the 2003/04 school year are now being accepted:

- Vice-president
- Secretary
- Treasurer

To nominate a candidate, complete the form below and mail it, along with a letter of recommendation, to Sandra Unrau, 11 Hartford Place NW, Calgary T2K 2A9. **Nomination deadline is May 1, 2003.**

If an election is necessary, it will be conducted by mail; ballots will be sent to all members in May. **Deadline for return of ballots is May 31, 2003.**

Ensure an active council by nominating people who will take an active role in making the Mathematics Council benefit all mathematics teachers.

Officer roles and descriptions are available on the MCATA website: www.mathteachers.ab.ca.

MCATA Executive Nomination Form

We, the undersigned members of MCATA, nominate _____
(name)

of _____
(address)

MCATA membership number, _____ for the position of _____

Signatures and addresses of two nominators:

Name _____ Address _____

_____ MCATA membership number _____

Name _____ Address _____

_____ MCATA membership number _____

I accept this nomination _____
(signature of nominee)

Members of the Alberta Teachers' Association (ATA) as specified in ATA bylaws, are eligible for regular membership in this council. All such members shall be entitled to full privileges of council membership, including the rights to vote and to hold office.

This nomination form may be reproduced.