



Volume 46, Number 1

December 2008



## **Multiplication on the Chinese Abacus**

### **Page 26**

- 13** Assessing Attitudes Through Student Writing
- 19** Rationale Gone Missing: A Comparative and Historical Curriculum Search
- 24** Developmental and Remedial Approaches in Mathematics Instruction

## Guidelines for Manuscripts

*delta-K* is a professional journal for mathematics teachers in Alberta. It is published twice a year to

- promote the professional development of mathematics educators, and
- stimulate thinking, explore new ideas, and offer various viewpoints.

Submissions are requested that have a classroom as well as a scholarly focus. They may include

- personal explorations of significant classroom experiences;
- descriptions of innovative classroom and school practices;
- reviews or evaluations of instructional and curricular methods, programs or materials;
- discussions of trends, issues or policies;
- a specific focus on technology in the classroom; or
- a focus on the curriculum, professional and assessment standards of the NCTM.

## Suggestions for Writers

1. *delta-K* is a refereed journal. Manuscripts submitted to *delta-K* should be original material. Articles currently under consideration by other journals will not be reviewed.
2. If a manuscript is accepted for publication, its author(s) will agree to transfer copyright to the Mathematics Council of the Alberta Teachers' Association for the republication, representation and distribution of the original and derivative material.
3. All manuscripts should be typewritten, double-spaced and properly referenced. All pages should be numbered.
4. The author's name and full address should be provided on a separate page. If an article has more than one author, the contact author must be clearly identified. Authors should avoid all other references that may reveal their identities to the reviewers.
5. All manuscripts should be submitted electronically, using Microsoft Word format.
6. Pictures or illustrations should be clearly labelled and placed where you want them to appear in the article. A caption and photo credit should accompany each photograph.
7. References should be formatted consistently using *The Chicago Manual of Style's* author-date system.
8. If any student sample work is included, please provide a release letter from the student's parent/guardian allowing publication in the journal.
9. Articles are normally 8–10 pages in length.
10. Letters to the editor or reviews of curriculum materials are welcome.
11. Send manuscripts and inquiries to the editor: Gladys Sterenberg, 195 Sheep River Cove, Okotoks, AB, T1S 2L4; email [gladyss@ualberta.ca](mailto:gladyss@ualberta.ca)

---

---

### MCATA Mission Statement

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

---



**CONTENTS**

<b>EDITORIAL</b>	2	<i>Gladys Sterenberg</i>
<b>FROM YOUR COUNCIL</b>		
From the President's Pen	3	<i>Sharon Gach</i>
MCATA Annual Conference	4	<i>Elaine Simmt</i>
The Right Angle: Report from Alberta Education	5	<i>Kathy McCabe</i>
<b>READERS' RESPONSE</b>		
The Graphing Calculator: A Valuable Tool in Mathematics Education	7	<i>Len Bonifacio and Darryl Smith</i>
<b>FEATURE ARTICLES</b>		
Assessing Attitudes Through Student Writing	13	<i>Lorelei Gibeau and Katherine Willson</i>
Rationale Gone Missing: A Comparative and Historical Curriculum Search	19	<i>Lynn McGarvey</i>
Developmental and Remedial Approaches in Mathematics Instruction	24	<i>Marlow Ediger</i>
A Grade 4 Adventure with Multiplication on the Chinese Abacus	27	<i>Jerry Ameis</i>
<b>STUDENT CORNER</b>		
Reliable Delivery with Unreliable Deliverers	33	<i>Sven Ti-lin Chou and Jason Wen-pen Liao</i>
<b>TEACHING IDEAS</b>		
Boxes for Water: We Can Make a Difference	37	<i>Nancy Espetveidt</i>
Alberta High School Mathematics Competition	45	<i>Andy Liu</i>
Edmonton Junior High Mathematics Competition	51	<i>Susan Ludwig</i>

Copyright © 2008 by The Alberta Teachers' Association (ATA), 11010 142 Street NW, Edmonton, AB T5N 2R1. Permission to use or to reproduce any part of this publication for classroom purposes, except for articles published with permission of the author and noted as "not for reproduction," is hereby granted. *delta-K* is published by the ATA for the Mathematics Council (MCATA). EDITOR: Gladys Sterenberg, 195 Sheep River Cove, Okotoks, AB T1S 2L4; e-mail [gladyss@ualberta.ca](mailto:gladyss@ualberta.ca). EDITORIAL AND PRODUCTION SERVICES: Document Production staff, ATA. Opinions expressed herein are not necessarily those of MCATA or of the ATA. Address correspondence regarding this publication to the editor. *delta-K* is indexed in the Canadian Education Index. ISSN 0319-8367

Individual copies of this journal can be ordered at the following prices: 1 to 4 copies, \$7.50 each; 5 to 10 copies, \$5.00 each; more than 10 copies, \$3.50 each. Please add 5 per cent shipping and handling and 5 per cent GST. Please contact Distribution at Barnett House to place your order. In Edmonton, dial 780-447-9400, ext 321; toll free in Alberta, dial 1-800-232-7208, ext 321.

Personal information regarding any person named in this document is for the sole purpose of professional consultation between members of The Alberta Teachers' Association.