



Volume 31, Number 1

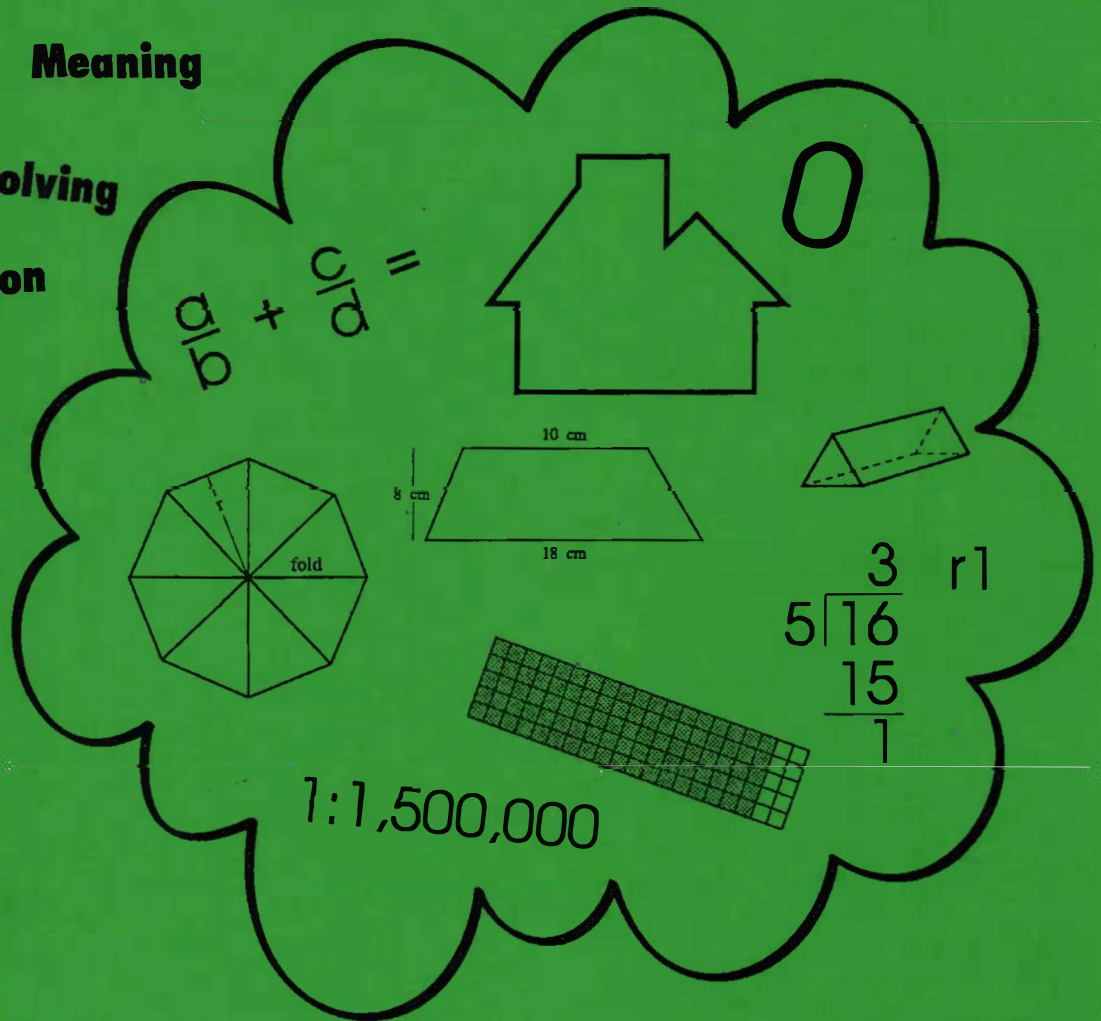
December 1992

## ACTIVITIES FOR ACTIVE MATHEMATICS TEACHING

Meaning

Problem Solving

Mental Computation



## ACTIVITIES FOR GRADE 8 MATHEMATICS

Collected and revised by Sol E. Sigurdson

Edited by Alton T. Olson

## CONTENTS

Comments on Contributors	2	
Editor's Comments	3	<i>A. Craig Loewen</i>
Prologue	4	<i>Alton T. Olson and Sol E. Sigurdson</i>
Summary of Key Instructional Behaviors	4	
Meaning Activities	5	
Problem Solving Questions	6	
Mental Computation	6	
Message to Project Teachers	7	
Unit I: PERIMETER AND AREA		
Teachers' Notes on Meaning Activities	8	
Meaning Activities	8	
Extension	13	
Unit II: SURFACE AREA AND VOLUME		
Teachers' Notes on Meaning Activities	16	
Meaning Activities	16	
Unit III: FRACTIONS		
Teachers' Notes on Meaning Activities	19	
Meaning Activities	20	
Problem Solving Activities	25	
Unit IV: RATIOS AND RATES		
Teachers' Notes on Meaning Activities	28	
Meaning Activities	28	
Problem Solving Activities	31	
Unit V: PERCENT		
Teacher's Notes on Meaning Activities	32	
Meaning Activities	32	
Applications	34	

---

*delta-K* is published by The Alberta Teachers' Association (ATA) for the Mathematics Council (MCATA). EDITOR: A. Craig Loewen, 414 25 Street S, Lethbridge T1J 3P3. EDITORIAL AND PRODUCTION SERVICES: Central Word Services staff, ATA. Copyright © 1992 by The Alberta Teachers' Association, 11010 142 Street, Edmonton 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. 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

## COMMENTS ON CONTRIBUTORS

---

*Alton T. Olson* is a professor in the department of Secondary Education at the University of Alberta and specializes in preservice teacher education in mathematics.

*Sol E. Sigurdson* is a professor in the department of Secondary Education at the University of Alberta and specializes in preservice teacher education in mathematics.