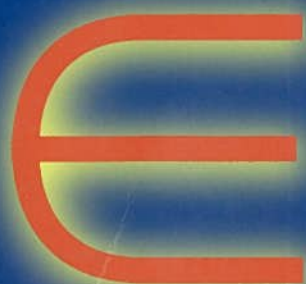
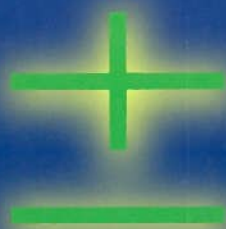


ALGEBRA OUT LOUD

Learning Mathematics Through
Reading and Writing Activities

Pat Mower, Ph.D.



ALGEBRA OUT LOUD

Learning Mathematics Through Reading
and Writing Activities

Algebra Out Loud is a unique resource designed for mathematics instructors who are teaching Algebra I and II. This easy-to-use resource is filled with illustrative examples, strategies, activities, and lessons that will help students more easily understand mathematical text and learn the skills they need to effectively communicate mathematical concepts.

Algebra Out Loud's strategies and activities will give students the edge in learning how to summarize, analyze, present, utilize, and retain mathematical content. The book offers proven writing activities that will engage the students in writing about algebraic vocabulary, processes, theorems, definitions, and graphs. *Algebra Out Loud* gives teachers the tools they need to help their students learn how to communicate about math ideas between student and teacher, student and peers, and student and the wider world.

For quick access and easy use, the activities are printed in a big 8-1/2" x 11" format for photocopying and are organized into eight chapters.

PREREADING STRATEGIES AND ACTIVITIES: Knowledge Ratings . . . Anticipation Guides . . . Problem Solving Prep . . . Wordsmithing.

READING AND VOCABULARY BUILDING STRATEGIES AND ACTIVITIES: Magic Square Activity . . . Concept Circles . . . K-W-L . . . Semantic Feature Analysis . . .

Graphic Organizers . . . Reading Math Symbols . . . Proof-Reading . . . Semantic Word Map.

POSTREADING STRATEGIES AND ACTIVITIES: Group Speak . . . Concept Cards . . . Fryer Model . . . Question-Answer Relationship (QAR) . . . Comparison and Contrast Matrix.

READINGS IN MATHEMATICS: The Secret Society of Pythagoreans: An Ancient Cult . . . Marathon Math . . . Egyptian Multiplication.

WRITING TO UNDERSTAND ALGEBRA: In Your Own Words: Paraphrasing Activity . . . Methods of Operation . . . Graph Description Activity . . . Crib Sheets . . . Math Story Activity . . . Math Ads . . . The Writing Is on the Wall . . . Creating a Math Mnemonics . . . Creation of Written Problems (or Fat Men in Pink Leotards) . . . Math Concept Paragraphs . . . Math Biographies . . . Experimenting to Learn Algebra Reports . . . Concept Math . . . Learning Log.

WRITING TO COMMUNICATE ALGEBRA: Writing Across Campus . . . Group Exposition . . . Guided Math Poetry . . . Math Letters . . . Math Poetry . . . Math Journals . . . Mathematical Investigator.

WRITING AS AUTHENTIC ASSESSMENT: Muddiest Point . . . Math Analogies . . . One-Minute Summary . . . Math Is a Four Letter Word . . . E-Writing . . . Math Similes, Metaphors, and Analogies . . . Targeted Problem Solving Assessments.

WRITING FOR ASSESSMENT: Math Portfolio . . . Math Essay . . . Write Question . . . Math Posters.

ABOUT THE AUTHOR

Pat Mower, Ph.D., is an associate professor in the Department of Mathematics and Statistics at Washburn University in Topeka, Kansas. Dr. Mower prepares preservice teachers to teach mathematics in elementary, middle, and secondary schools. Her interests include reading and writing in mathematics, and alternative methods for the teaching and learning of mathematics.

Cover design by Bruce Lundquist

EDUCATION

U.S. \$29.95
Canada \$42.99/U.K. £19.50

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ISBN 0-7879-6898-6

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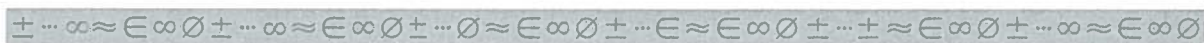
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