

Welcome

Daniel Schaben
NATM 1st Vice President

See Math, Hear Math, and Do Math. In today's high tech world our students are bombarded with information. They have more information at their fingertips than any generation in history. I still think that no matter how much information we are bombarded with, friends and colleagues provide us with the best information.

As math educators, I feel that the reason to be here is to spend time with other like-minded professionals, glean ideas, and reestablish friendships. There is no calling greater than this. And in this ever changing world we will have to stand together more than ever before. The tools we use to educate our children change faster than most of us are able to keep up. The calculator industry is already developing the next product to sell us before many of us know how to use what we have.

The internet, although evolving, is a tool that seems to be stable. And all schools seem to be moving toward computer access to all children. As a case in point, my third grade daughter has better typing skills than I do. Dr. Hohenwarter has developed a free internet tool that in its own way can make many of the gadgets we purchase obsolete. More and more students each year have computer/internet access at both home and school. GeoGebra can drastically change and simplify our job. Finally, one tool for students that has the capability of connecting the concepts of geometry, algebra, and calculus visually in one class period rather than one week using several different devices or programs. With this tool math teachers can go beyond the algorithms and get to the heart of visualizing the concepts. GeoGebra is a tool that can make the concepts of mathematics come to life on our computer screens.

NATM Board

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Deb Bulin, Thayer Central Public School	Membership Treasurer
Stacey Aldag, Battle Creek Public School	Workshop Coordinator
Deborah Romanek	State Department Representative
Robert Christensen, Keya Paha County School	Web Page Editor



Congratulations!

Design Contest Winners

Promotional Design

Mrs. Edgren and her student Megan Peters of Wood River High school

Program Design

Mrs. Buchanan and her student Travis Buchanan of St. Paul High School

Schedule Format

Registration: 8:00 – 9:00 A.M.

JUMP: 8:00 - 8:45 a.m. (Stateroom C)

Welcome: 9:00 a.m.

Keynote: 9:00 – 9:45 a.m.

Morning-Session: 10:00 – 10:45 a.m.

Morning-Session: 11:00 - 11:45 a.m.

Lunch and Awards: 12:00 a.m. – 1:15 p.m.

Afternoon Session

Session 1: 1:15 – 2:15 p.m

Session 2: 2:30 – 3:30 p.m.

Presidential Treats in the Ballroom: 3:35 – 4:00 p.m.

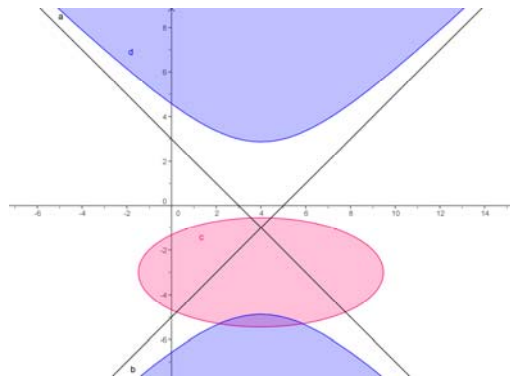
Make sure to return your critique for prizes.

There will be people accepting your critiques as you leave the site at Holiday Inn.

**Welcome
Daniel Schaben**

Key Note: Dr. Markus Hohenwarter

**"Dynamic Mathematics and Online
Collaboration with GeoGebra"**



Creator and Project Leader of [GeoGebra](https://www.geogebra.org/m)

Dr. Hohenwarter is the creator of an interactive software program for algebra and geometry called GeoGebra. This useful software is available to everyone for **FREE along with exciting lessons and ideas from math teachers around the world. GeoGebra is a dynamic mathematics software for education in secondary schools that joins geometry, algebra and calculus. On the one hand, GeoGebra is a dynamic geometry system. You can do constructions with points, vectors, segments, lines, conic sections as well as functions and change them dynamically afterwards. On the other hand, equations and coordinates can be entered directly. Thus, GeoGebra has the ability to deal with variables for numbers, vectors and points, finds derivatives and integrals of functions and offers commands like *Root* or *Extremum*.**

These two views are characteristic of GeoGebra: an expression in the algebra window corresponds to an object in the geometry window and vice versa.

BREAK

9:45 a.m. to 10:00 a.m.

Visit the vendors.

Session One: 10:00 – 10:45

Dr. Markus Hohenwarter – Florida Atlantic University Ballroom I - Grade 7 - 12

GeoGebra

Come and experience the award winning and free web based program that is changing the way mathematics is taught throughout the world; the program that seamlessly links algebra, geometry, and calculus.

Betty Teter & Polly Amstutz - UNK Stateroom B - Grade 4 – 12

Our Five Favorite Shocking, Fun, Thought-provoking, Mathematically Sound Activities/Problems Workshop

- a) Condom problem (Pascal's triangle/statistics & probability/binomial expansion)
- b) Dot-to-dot dog problem (Exponents/operations on whole numbers)
- c) Count to ten with only four 4's problem (problem solving/whole number operation)
- d) Represent the 31 possible days in a month with pennies, nickels, quarters – because I said so problem (introduction to base five)
- e) Tennis ball/world/bra problem (circumference)

Ed Ankrom - Beatrice High School State Room E – Grade 7 – 12

At Math Camp....

Ed will discuss different activities he used at an Upward Bound Math Science Camp to enrich a Geometry Class. He demonstrates Spherical Geometry, playing games on different surfaces, and paper folding with paper plates. The movie PI will be discussed and he will share different math activities that can be introduced or reviewed with ideas from the movie. If you are looking for different activities to integrate into your curriculum or wanting some ideas for a summer camp this session will be beneficial. Some activities will be demonstrated while others will need participation from the group.

Nebraska Department of Education
Stateroom C - Grades K – 12
Standards update and assessment

Beth Welke – Northeast Community College
Stateroom D - Grade K – 6
Analyze This!

Hands on activities for data analysis in the elementary classroom, come play with pennies, droppers, starburst, and calculators.

Andrea Wiens & Amy Nebesniak – Lux Middle School & Grand Island Senior High
Stateroom F - Grade 7 – 12

Habits of Mind Connections: Viewpoints from Math in the Middle

After real classroom experience with habits of mind problems, Andrea and Amy will share how these problems can be implemented in classrooms from pre-algebra through advanced algebra.

Cheri Eck: Box Cars and One Eyed Jacks
Probability FUN “DIE” MENTALS (3 – 6)
Pre-Function Area

Dice games for teaching probability concepts including: predicting, outcomes, beginning statistics, graphing and data management. Discover the “WOW” of this part of the curriculum.

Open Computer Lab with 10 Lap Tops - Room 102

BREAK
10:45 a.m. – 11:00 a. m.
Visit the Vendors!

Session Two: 11:00 – 11:55

Beth Welke – Northeast Community College

Stateroom D - Grade 7 – 12

TI-Nspire!

Come see a demonstration of the latest TI Technology!

Stacey Aldag – Battle Creek

Stateroom F - Grades 7-12

Statistically Speaking . . .

Hands-on activities that will energize the high school mathematics classroom. Fathom software will be demonstrated and hands-on activities will be shared. Come experience statistics Live!

Betty Teter & Polly Amstutz - UNK

Stateroom B - Grade 4 – 12

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Tom J Price - Norris Middle School

Stateroom E - Grade 7 - 12

Faction Festival – One way to Celebrate

Experience culminating day after studying fractions: Food, Poems, Songs, Skits, and fun are involved.

Nebraska Department of Education

Stateroom C - Grades K – 12

Standards update and assessment

Cheri Eck: Box Cars and One Eyed Jacks

Operation Box Cars & One-Eyed Jacks (K – 6)

Pre-Function Area

This game workshop focuses on the best card, dice, and multi-sided dice games that help students understand and master the basic operations. Come prepared to play.

Open Computer Lab with 10 Lap Tops - Room 102

Lunch, Voting, and Awards: 12:00 – 1:15

Ballroom I

Traditional Country Buffett

(Name badge must have a star to eat)

**Garden Salad with Dressings, Pasta Vinaigrette Salad,
Coleslaw, Vegetable Tray with Dip & your choice of: Fried
Chicken, Glazed Ham, and Roast Sirloin of Beef, Potato,
Vegetable, and Homemade Dinner Roll**

Session Three: 1:15 – 2:15

Tom J Price – Norris Middle School

Stateroom E - Grades 4 – 10

The New and Improved Computer Program Language Called Logo

Did you think Logo was a thing of the past? Come and see the latest version and how it is being used at Norris Middle School for a 6 week exploring class.

Lenny VerMaas – ESU 6

Stateroom C - Grades K - 6

A Million Dots????????????

Number sense is something that all students need to develop but a skill that can difficult for many. Estimating is different from guessing and requires specific skills as well as practice. We will look at several activities and picture books that will help students develop an understanding of large numbers.

Deanna Stall - ESU 10
Stateroom F - Grades 4 – 12

Web 2.0: Classroom Tool for Instruction

The web is taking on a new dynamic. Information consumers are becoming information producers. Students integrate many technology tools like these in their social world. Educators can use these same tools for student learning. Explore with us as we investigate new tools such as wikis, blogging, social calendars, bookmarks, and collaborative documents. See these tools strengthen Marzano's Strategies and the Nebraska State Standards.

Graci Gillming - ESU 10
Stateroom D - Grades 7 – 12

Inspire Data: New Tool from Inspiration

Inspire Data is a new product by the makers of Inspiration which allows students to create databases or use one of the 50 cross-curricular databases. Students develop knowledge and critical thinking skills as they investigate, manipulate, and analyze visual data. Learn more about this software and the lessons you can create for your students!

Betty Teter & Polly Amstutz - UNK
Stateroom B - Grade 4 – 12

So What Should I Do With This Rectangle Workshop?

- a. Let's find the distance around rectangles. (Measurement/Perimeter using dot paper. Discover perimeter formula)
- b. Let's fill in the rectangle with squares. (Measurement of area with square cm dot paper. Discovery of area formula)
- c. Let's "Escherize" it. (We made up this word). Time for art, cutting, scotch tape and coloring!

BREAK
2:15 a.m. to 2:30 a.m.
Visit the vendors!

Session Four: 2:30 – 3:30

Dr. David Fowler – University of Nebraska-Lincoln

Ballroom I - Grades 7 – 12

Advanced Uses for GeoGebra

Uses of GeoGebra for High School Developed by Math in the Middle
Participants

Lenny VerMaas – ESU 6

Stateroom C - Grades 7-12

Huffing and Puffing to Understand Slope or Smoke and You Croak

Find out how blowing up a balloon can be used to engage students in learning about volume, graphing, slope and linear equations. Student collect data from a balloon that is blown up, graph the data, and make some interesting discoveries. Science connections are also created. Appropriate for students in pre-algebra or above.

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Dr. Marilyn Mudge – Wayne State College

Stateroom E - K – 6

The ABCs of Pentominoes: Activities, Books, & Challenges

This is a hands-on session on pentominoes.

**Elizabeth Mulkerrin – Education Curator Henry Doorly Zoo
Going Ape Over Math! (K-12)**

Discover how Omaha's Henry Doorly Zoo veterinarians apply mathematical concepts daily. We will spend time learning about the gorillas found in Hubbard Gorilla Valley, mathematically prepare a gorilla for a medical procedure by becoming zoo vets; and walk away with exciting zoo lessons to incorporate into your classroom.

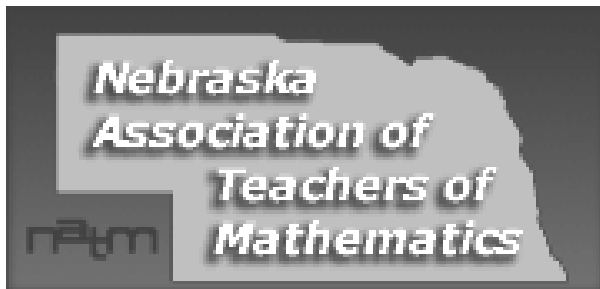
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Upcoming Dates



**NATM
Pre-Service/New Teacher
Conference
February 23, 2008
Lincoln Southwest**

**NCTM Annual Meeting
Salt Lake City, Utah
April 9-12, 2008**

**NCTM Regional Meeting
Kansas City, Missouri
October 25-27, 2007**