CUMULATIVE CHRONICLES

Math Club Newsletter
SUNY Cortland

Issue 1, Spring 2013

Welcome to the first issue of *Cumulative Chronicles*, Math Club's newsletter. With this newsletter we aim to provide students with updates on Math Club's past and future activities. We also want to make our readers aware of other opportunities such as scholarships and conferences.
We welcome anyone who wants to share their experiences with other students, such as but not limited to, study abroad experiences or student teaching experiences.
Finally, we want to convey that one can have fun with math! Check out our *Math=Fun! page*, if you don't believe us!

Enjoy reading!

President	Annie Calbo	(annmarie.calbo)
Vice President	Keri Marks	(keri.marks)
Secretary	Laura Foti	(laura.foti)
Treasurer	Chris Lambert	(christopher.lambe02)
SGA rep	Gabby Mastrogiovanni	(gabrielle.mastrogio)
Newsletter Editor	Robin Tobin	(robin.tobin)
Faculty Advisor	Dr. Sonia Sharma	(sonia.sharma)

Upcoming Events in Spring 2013

- **T-Shirt Fundraiser**
- **End of the year Barbecue**

Get involved!
Join us on our Facebook page,
Cortland Math Club.
All majors are welcome!

If you have any suggestions or would like to contribute to the next issue of our newsletter, please contact:
Annie Calbo (annmarie.calbo@cortland.edu) or
Robin Tobin (robin.tobin@cortland.edu) or
Sonia Sharma (sonia.sharma@cortland.edu)

Fall 2012 Fundraiser

On Friday November 30, 2012 the SUNY Cortland math club held their annual Holiday fundraiser. This fundraiser was a holiday basket auction where the club members, faculty and students bought raffle tickets and placed them with the basket that they wished to win. All proceeds went towards the Make-a-Wish foundation, a foundation who works with families to grant wishes for terminally ill children. There were many baskets containing a variety of prizes that consisted of donations from local businesses throughout the Cortland Community. "Our fundraiser was very successful this year," says club president Annie Calbo, "Not only did we receive an abundance of support from Cortland's businesses and restaurants, we had a full house for the night of the event." The math club members worked extremely hard to make sure the auction was a success. Their hard work sure did pay off!

MOMATH
MUSEUM OF MATHEMATICS

America's only museum of Mathematics had a grand opening on December 15 2012, at 11 East 26th Street in Manhattan. Most of the exhibits in MoMath's collection aim to interest visitors by means of paradox: presenting a puzzle or apparent contradiction to stimulate curiosity and desire to learn more. For example, the museum's Hyper Hyperboloid confronts the visitors with a curved surface formed from taut lines of string. How can straight line be a curved surface? By seeing such a surface first hand, visitors come to understand how a surface can be both straight and curved.

Similarly, MoMath's signature square-wheeled tricycles can be pedaled effortlessly – so long as they are pedaled along a specially designed ridged roadway. As Glen Whitney, President of MoMath, remarks, "For every wheel there is a perfect road."
For more information visit www.momath.org.

*Excerpt taken from MAA's **Math Horizons** November 2012*

Keynote Speaker Presentation on Simulated Interaction Models

On Tuesday October 29, 2012, Syracuse Professor Dr. Ben Dotger presented his project "The Science and Mathematics Simulated Interaction Model (SIM)." In 2011 Dotger was awarded a $449,898 grant from the National Science Foundation (NSF) for his project. These SIMs are designed to prepare pre-service and early-career mathematics and science teachers through live one-on-one interactions with trained actors who present problems, dilemmas, or questions that teachers may encounter in the field. Dotger expressed that through implementing this project with many students and teachers, they have all benefitted greatly. Through the SIMs, participants are able to experience a realistic situation, reflect on their behavior, and apply their corrections to the next SIM, and so on. Dotger shared that some participants have partaken in 12 SIMs. Participants have also expressed to Dr. Dotger how grateful they are to have contributed in this opportunity and how much it has eased the stress when these issues occur in their real job.

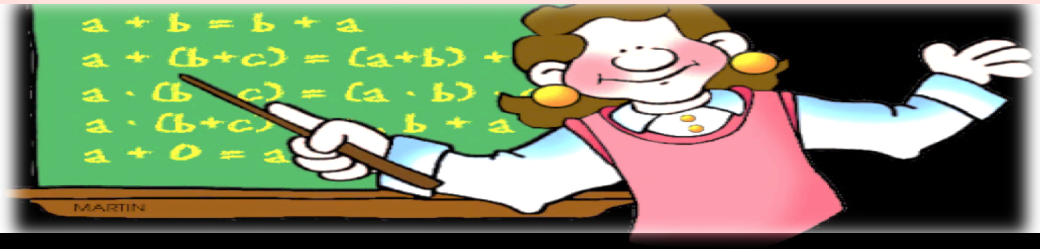
An Interview with mathematics teacher Steve Brown

SUNY Cortland Adolescent Education Mathematics major, Tino Muscatelli, interviewed his observation host teacher at Cortland Alternative School.

Q: What advice can you give for math education majors observing in classrooms?
A: Get involved; teacher may not be able to work with observer during the class, so ask before class what to do. Do not sit in the back of the classroom, rather walk around the room.

Q: What advice for math education major students who are preparing to student-teach?
A: Develop a good relationship with students, students and student-teachers should be teammates. Students will feel more comfortable if they know the student-teacher show that they care. Lastly, help them grow as a math student.

Q: After landing a full-time job, what are some important things to remember for those who are first time teachers?
A: It is important for first time teachers to not take students comments personal.Frequently talk to the department head about any issues or concerns.



New York State Education Department – State University of New York at Cortland Undergraduate Clinically Rich Teacher Preparation Program

This scholarship is an alternative teacher preparation pathway offering an extensive clinical experience at Binghamton High School. The program begins in the spring of 2013 with an introduction to the school and community and culminates in a yearlong residency during the 2013-2014 academic year. This model serves to best prepare pre-service teachers for today's classrooms.

Available to:

- Current ABI, AES, ACM, APH, or APM (with "W" status is OK) students who have taken, are currently enrolled in, or eligible to take AED 391 **OR** BIO, GLY, PHY, CHE (undergraduate) students in junior standing who are interested in becoming a teacher.

Requirements:

- GPA 2.85 or higher
- Completed application, including recommendations
- Commitment to teach in a high need school district after graduation

(high need ≠ urban)

Benefits:

- Full tuition for one year (2013-2014)
- Living or travel stipend
- An iPad and teaching apps
- Guaranteed placement in the Binghamton School District for the clinically-based early field/student teaching experience
- Pre and post-graduation mentoring and support on APPR, new teacher certification exams, Common Core State Standards, Data Driven Instruction, and urban education.
- Job placement support

To apply, contact:

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Chemistry Department
(607) 753-2913 or kerri.freese@cortland.edu

Upcoming Conferences
Spring & Summer 2013

Long Island Mathematics Conference
SUNY College at Old Westbury
March 15, 2013

Ten County Mathematics Educators Association Annual Conference
Middletown High School
March 16, 2013

Hudson- Mohawk Valley Area Mathematics Conference
Albany High School
Albany, NY
March 23, 2013

Hudson River Undergraduate Mathematics Conference
Williams College
Williamstown, MA
April 6, 2013

Regional Undergraduate Mathematics Conferences (RUMC)
Towson University, MD
March 30, 2013

Manhattan College
April 6, 2013

George Mason University, VA
April 20, 2013

AMS Spring Eastern Sectional Meeting
Boston College, MA
April 6-7, 2013

Hudson MAA MathFest
Hartfort, CT
August 1-3, 2013

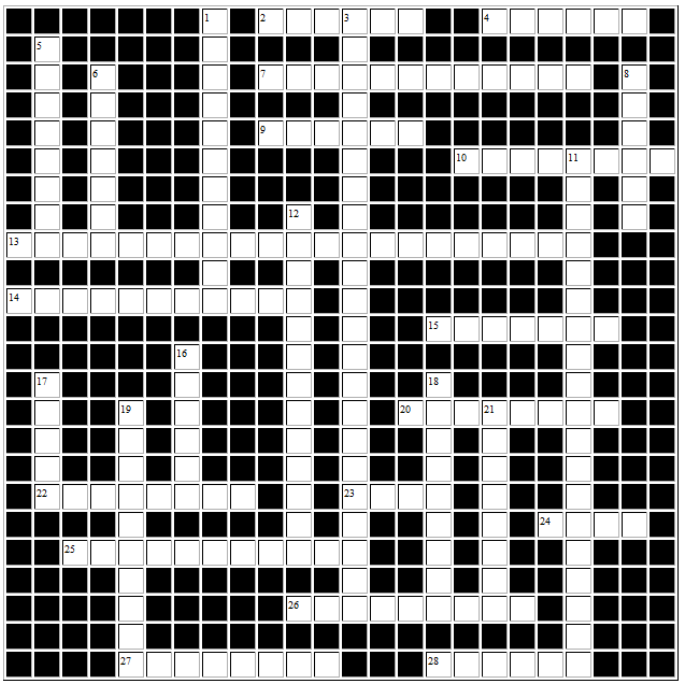
MATH=FUN!!

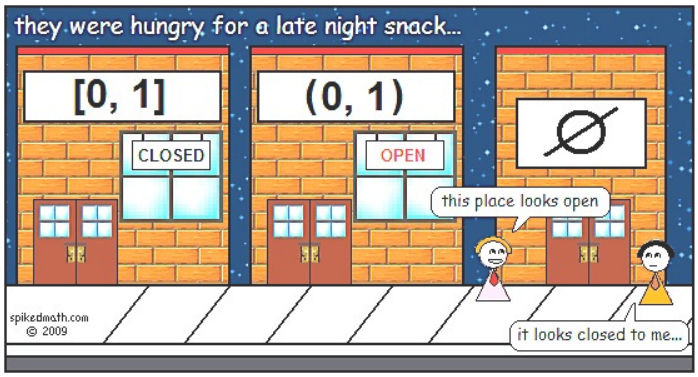
Across

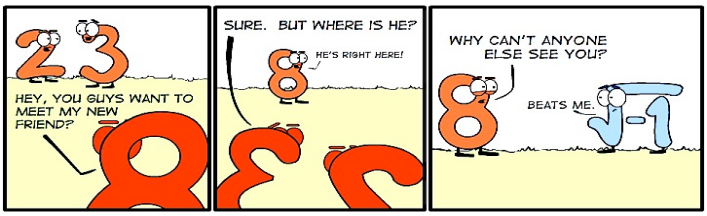
2	The point (0, 0) on a coordinate plane, where the x-axis and the y-axis intersect.
4	The vertical axis in a Cartesian coordinate system.
7	Set of two numbers in which the order has an agreed-upon meaning, such as the Cartesian coordinates (x, y), where the first coordinate represents the horizontal position, and the second coordinate represents the vertical position.
9	One of two or more expressions that are multiplied together to get a product.
10	The line segment connecting two nonadjacent vertices in a polygon.
13	The smallest nonzero number that is a multiple of two or more numbers.
14	A selection in which order is not important.
15	A closed plane figure made up of several line segments that are joined together.
20	A five-sided polygon.
22	A number or symbol, as 3 in (x + y)3, placed to the right of and above another number, symbol, or expression, denoting the power to which that number, symbol, or expression is to be raised.
23	The number of square units that covers a shape or figure.
24	Given or x^n, the "x" is the base. The base number gets multiplied by itself the number of times indicated by the exponent, "n".
25	A constant that multiplies a variable.
26	The sum of the lengths of the sides of a polygon.
27	A mathematical statement that says that two expressions have the same value; any number sentence with an equal sign.
28	The horizontal axis in a Cartesian coordinate plane.

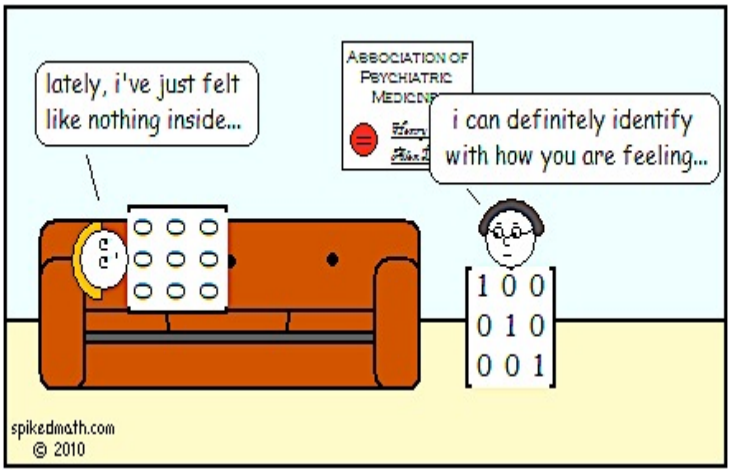
Down

1	The square root of x is the number that, when multiplied by itself, gives the number, x.
3	The largest number that divides two or more numbers evenly.
5	A letter used to represent a number.
6	A parallelogram with four equal sides.
8	A quadrilateral with four equal sides and four 90 degree angles.
11	Parenthesis, Exponent, Multiplication, Division, Addition, Subtraction.
12	One method for calculating the total number of outcomes in a sample space.
16	A measurement of space, or capacity.
17	The union of two rays with a common endpoint, called the vertex.
18	A quadrilateral with four 90-degree angles.
19	The side opposite the right angle in a right triangle.
21	A three-sided polygon.



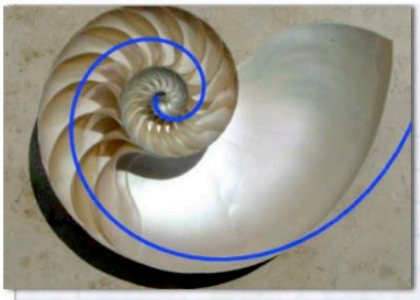






STEM IN SCHOOLS

SUNY CORTLAND MATH CLUB



STEM Education Coalition

We see all over the news, that our country is moving towards more STEM resources in the curriculum. That is, more science, technology, engineering, and mathematics. We see it on Time Warner Cable commercials and hear our presidential candidates debating about it. Getting involved now may help us find a career in the near future.

JOIN AN ASSOCIATION

www.stemedcoalition.org is a website that works with STEM programs all over the U.S. Such as the National Science Foundation and the U.S. Department of Education. Here you can fiend a variety of resource links to different associations affiliated with STEM programs. Some of these associations include: NCTM (National Council of Teachers of Mathematics), MAA (Mathematical Association of America), and AMTNYS (Association of Mathematics teachers of NYS).

STEM here at Cortland

The Robert E. Noyce Scholarship is a grant for STEM majors (also includes economics). These students will demonstrate their interest in math and science as they peruse a teaching career in STEM education. The program is founded by the National Science Foundation. These students go on many valuable conferences and allow students to branch out to other STEM associations. The grant is 12,500 a year for undergraduate students, and 15,000 for graduate students. In exchange, every year that the scholars received the award, they will have to teach in a high needs school for two years.

See more details at http://www2.cortland.edu/offices/finadv/scholarships/noyce/ .

A LITTLE ABOUT ROBERT NOYCE

Robert E. Noyce was the co-founder of Fairchild Semiconductor where he was credited with the invention of the microchip. He later also co-founded Intel where he was a great mentor to former CEO of apple, Steve Jobs. In 1990 Noyce died suddenly from a heart attack at age 62. In his memory, his family has started the NOYCE foundation which is driven by every thing he believed in: optimism, creativity risk taking, and determination.

MTNYS Is an association us math m

AMTNYS Is an association us math majors are required to sign up for here in our program. However, don't just may your dues and ignore the emails. Check out the site and see what this organization has to offer.

STEM Education News

TI-NSPIRE Check out new technology! Learn how to use this calculator with new software in our computer labs here at Moffet. Check it out under programs, then TI-software.