MATYCONN MATHEMATICAL ASSOCIATION OF TWO-YEAR COLLEGES OF CONNECTICUT

NEWS Spring 2006

Conferences, Conferences, Conferences!
Matyconn members travel near and far

Welcome to our World!

Fall 2005 MATYCONN Meeting, 10/21/05, Three Rivers CC

Spring 2005 MATYCONN Meeting, 04/29/05, Gateway CC

Articles

Features

Announcements

Other Info

Registration Forms

Editors' Swan Song: Thanks for everything!
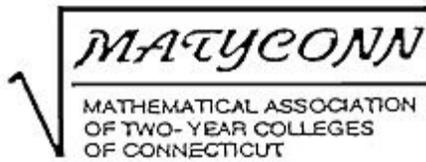
NEWS

MATYCONN

MATHEMATICAL ASSOCIATION
OF TWO- YEAR COLLEGES
OF CONNECTICUT

Spring 2006

Conferences, Conferences, Conferences!

MATYCONN members travel near and far

AMATYC 31st Annual Conference, San Diego, California
TEXMATYC, Houston, Texas
Fractal Geometry Workshop, New Haven, Connecticut

Welcome to Our World!

Connecticut Community Colleges have been fortunate to
hire new full-time mathematics faculty, expand our real estate,
and secure grants. Read all about it inside!

MATYCONN
MATHEMATICAL ASSOCIATION OF TWO-YEAR COLLEGES OF CONNECTICUT

2005-2006 Officers/Executive Board

Joe Karnowski, President
JKarnowski@ncc.commnet.edu

Mark Leach, Vice President
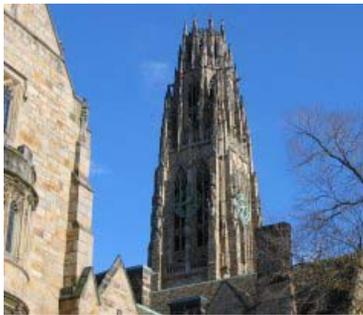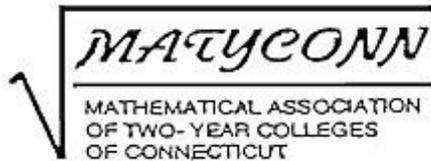MLeach@hcc.commnet.edu

Betsey Doane, Secretary
BDoane@hcc.commnet.edu

Deborah Litwinko, Treasurer
DLitwinko@nvcc.commnet.edu

Jana Sime, Membership Chair
JSime@mcc.commnet.edu

Alice Burstein, Immediate Past President
ABurstein@mxcc.commnet.edu

Steve Krevisky, Math Contest Coordinator
SKrevisky@mxcc.commnet.edu

Larisa Alikhanova, Minority Scholarship Chair
LAlikhanova@trcc.commnet.edu

Bonnie Simon, Newsletter Editor
BSimon@nvcc.commnet.edu

Elaine Dinto, Newsletter Editor & Webmaster
EDinto@nvcc.commnet.edu

2005-2006 Campus Contacts

Asnuntuck
Pat Hirschy (860) 253-3139
PHirschy@acc.commnet.edu

Capital
Andre Freeman (860) 906-5177
AFreeman@ccc.commnet.edu

Gateway
Rachael Schettenhelm (203) 285-2191
RSchettenhelm@gwcc.commnet.edu

Housatonic
Betsey Doane (203) 332-5110
BDoane@hcc.commnet.edu

Manchester
Barbara Paskov (860) 512-2718
BPaskov@mcc.commnet.edu

Middlesex
Alice Burstein (860) 343-5791
ABurstein@mxcc.commnet.edu

Naugatuck Valley
Sandra Pettinico (203) 596-2161
SPettinico@nvcc.commnet.edu

Northwestern
Greg Banks (860) 738-6372
GBanks@nwcc.commnet.edu

Norwalk
Joe Karnowski (203) 857-3378
JKarnowski@ncc.commnet.edu

Quinebaug Valley
Joy Mark (860) 774-1130 X404
JMark@qvcc.commnet.edu

Three Rivers
Larisa Alikhanova (860) 885-2375
LAlikhanova@trcc.commnet.edu

Conferences/Workshops

18th Annual ICTCM Meeting (International Conference on Technology in Collegiate Mathematics), Orlando, FL, March 16-19, 2006, *http://www.aw-bc.com/ictcm/*

Annual MATHWEST Meeting & T3 Regional Conference, *"Fresh Ideas Start Here,"* Springfield, MA, March 31 - April 1, *http://www.mathwest.org/ConferencesEvents/Conferences.htm*

20th Annual CSU Academic Computing Conference, Eastern Connecticut State University, Willimantic, CT, April 8, 2006, *www.ct.edu/AcadCompConf*

NEMATYC 2006, 32nd Annual Meeting of the New England Mathematical Association of Two-Year Colleges, Southern New Hampshire University, Manchester, NH, April 21-21, 2006, *http://www.nematyc.org/Conferences/Conf_2006/Conf_2006.html*

MATYCONN SPRING Meeting will be held in conjunction with **NEMATYC,** Southern New Hampshire University, Manchester, NH, April 21-22, 2006, *http://www.nematyc.org/Conferences/Conf_2006/Conf_2006.html*

AMS 2006 Spring Eastern Sectional Meeting, University of New Hampshire, Durham, NH, April 22-23, 2006, *http://e-math.ams.org/amsmtgs/sectional.html*

NCTM 2006 Annual Meeting and Exposition, St. Louis, MO, April 26-29, 2006, *http://www.nctm.org/meetings/stlouis*

Northeastern Section of the MAA Spring Meeting, Boston University, Boston, MA, June 2-3, 2006, *http://math.bu.edu/MAA_meeting/*

AMATYC Outer Banks Summer Institute, "*Developmental Algebra Using a Function Approach***,"** Duck, NC, June 18-23, 2006, *http://www.amatyc.org/Events/summer-institutes.htm*

MathFest, 2006 MAA National Meeting, Knoxville, TN, August 10-12, 2006, *http://www.register123.com/event/profile/web/index.cfm?PKwebID=0x30458b4f1*

ATMNE Annual Conference, *"Magic in the Mountains,"* Killington, VT, October 19-21, 2006, *http://members.ispwest.com/bowdish/atmne/*

AMS 2006 Fall Eastern Section Meeting, Storrs, CT, October 28-29, 2006, *http://e-math.ams.org/amsmtgs/sectional.html*

32nd AMATYC Annual Conference, "*Keeping Current with the Standards,***"** Cincinnati, OH, November 2-5, 2006, *http://www.amatyc.org/Events/conferences/2006Cincinnati/index.html*

T^3 Regional Conference, *"Using Technology to Engage Students in Discovery Learning,"* Staten Island, NY, November 3-4, 2006, *http://discovery.csi.cuny.edu/conferences/t3conf/index.html*

2007 MAA-AMS Joint Mathematics Meeting, New Orleans, LA, January 4-7, 2007, *http://www.ams.org/amsmtgs/2098_intro.html*

2007 T^3 International Conference (Teachers Teaching with Technology International Conference), Chicago, IL, March 9-11, 2007, *http://education.ti.com/educationportal/sites/US/nonProductMulti/pd_conferences_chicago.html*

News from the AMATYC Northeast Regional Vice President,
Maryann Justinger

Erie Community College, Buffalo, NY
justinger@ecc.edu

Hello and Happy New Year to all. Well, I'm just starting to work my way into this new position and I would first like to thank Jack Keating for all his years of dedicated service and friendship. I'm sure I'll be calling on him for advice soon! The new AMATYC Executive Board just finished its orientation and strategic planning meeting and there are a few items of interest that I wish to share with everyone. First of all, as you are probably aware, the "Beyond Crossroads" document will be presented at the 2006 Annual Conference in Cincinnati, Ohio. Affiliate Presidents should have received or will be receiving shortly a request from AMATYC to endorse the document. There will be a page in the published document that will list all the organizations who have decided to provide an endorsement by the publication deadline. If you need to familiarize yourself with the document, the latest draft can be found at our website (http://www.amatyc.org) under publications. The website also provides membership information for those of you who are not yet AMATYC members and other valuable information about the organization.

Also, we are requesting membership involvement in AMATYC's strategic planning process. An article will appear in the AMATYC *News* inviting all AMATYC members to provide input into the development of a list of core values for the organization. These values will accompany the AMATYC Mission Statement and Strategic Priorities and Goals (see website). Your input is essential in this important process and to the organization. Members are invited to visit the AMATYC website and provide your input on AMATYC's core values no later than April 1. The results of your input will be discussed at the 2006 Spring Board meeting and shared with members in the fall. Please become involved in this important activity.

Update from the Delegate Assembly
By Alice Grandgeorge, AMATYC State Delegate

2005 Northeast Region Breakfast Meeting —
Can you find the 5 MATYCONN members with
the NEMATYC members?

At the 2005 Delegate Assembly of the American Mathematical Association of Two-Year Colleges held in San Diego, California on Saturday, November 12th, the assembly voted to endorse the *Beyond Crossroads* document. The position statement "Guidelines for Dual Enrollment in Mathematics" was adopted. Final revision appeared in the January 2006 *AMATYC NEWS*. The last motion passed was

to set AMATYC dues every two years by the Consumer Price Index-Urban Consumers (CPI-U).

San Diego's Town and Country Resort and Convention Center has 40 acres of beautifully landscaped grounds located across the street from Fashion Valley Mall and the Trolley Stop

Other reports to the Delegate Assembly included an updates on the Strategic Planning, Mathematics Across the Community College Curriculum (MAC^3) grant, a National Science Foundation (NSF) grant on digital products for the *Crossroads* Revisited Project, and Project ACCESS. Check out www.amatyc.org for the latest information on the status of these grants and projects.

Since the Connecticut Community College System has many new mathematics openings, please consider nominating one of your new mathematics instructors at your College to be a Project ACCCESS Fellow. The deadline for the next cohort of Fellows is June 30, 2006. MATYCONN members are encouraged to visit the AMATYC website at www.amatyc.org/ProjectACCCESS to obtain an application. So far, Connecticut has not had a Fellow participate in this program.

Seaport Village contains over 50 one-of-a-kind shops located along San Diego Bay.

The Executive Board of AMATYC has been advised by the parliamentarian that the previous practice of proxies is incorrect. Since the constitution or by-laws do not provide for proxies they should not be used. Therefore, correct designation of State and MATYCONN Delegates to the AMATYC Delegate Assembly must be identified before delegate packets are issued which is usually in early September.

Finally, remember the 32nd AMATYC Annual Conference will be held November 2-5, 2006 in Cincinnati, *Keeping Current with the Standards*. Mark this important date on your calendars to celebrate the official release of the *Beyond Crossroad*s document.

Amphibious vehicle that tours the Bay area

Reflections on AMATYC
By Kathleen Bavelas, Gateway CC

At last this year I made it to San Diego. Last time AMATYC was there my daughter went into labor, and a few years ago when NCTM was in San Diego we were expecting another grandchild. David and I arrived a day early and spent it not at the zoo itself but the Wild Animal Park. There animals from around the world that are endangered are kept and bread in surroundings that as closely as they can, mimic their native habitats. We spent the whole day there. It was wonderful! One of their success stories was of some Mongolian horses they had had and finally they were able to reintroduce in Mongolia. Because there are no cages and the animals have large ranges we walked our feet off.

Thursday I attended a workshop that presented a lot of national data but was disappointed that the presenters did not interpret the data in a neutral fashion. But then I attended a session "What Do Algebra Students Really Need to Know" by Phil Cheifetz and Ellen Schmierer. Phil is so dynamic. If you have never heard him present and you are at a conference where he is presenting, do attend his session. As I would expect of Phil and Ellen it was a balanced presentation of needed skills and also needed critical thinking skills and problem solving. They of course

also addressed the angst we all have today of balancing skills and also trying to prepare students to be mathematical learners for the world of tomorrow that may not look anything like we think it will at this moment. I have learned not totally too late that I need not do sessions from 7:30 to 5—just a few a day and some time to reflect.

Friday morning started with the regional breakfasts and the agenda of the Northeast section. Always fun for it is a time to meet old friends and make new ones. I then attended a panel discussion on algebra and spent some time at the exhibits gaining new

knowledge on what is new in technology and checking out some texts. Did not get to spend much time in my room although the accommodations were wonderful. Did spend one late afternoon and evening in San Diego and took a few pictures of the city. Saturday was the usual awards breakfast followed by the key note speaker Millie Johnson who was wonderful (another do not miss if she is on the roster to present) but I had to leave midway, plane connections. There is never enough time at AMATYC—one of the disadvantages of a November conference when one is teaching and especially when the conference is on the other side of the continent.

If you have never been to an AMATYC conference, next year is Cincinnati is hosting and I hope you will give thought to attending. You will not regret it.

Reflections on AMATYC Conference
By Joe Karnowski, Norwalk CC

I attended the annual AMATYC conference in San Diego (November, 2005).

In a presentation entitled "NASA Center for Success in Math & Science," representatives from Estrella Mountain CC in Arizona presented their model for outreach, retention, and transfer. The program was established to help increase the number of CSEM majors within traditionally underrepresented minority populations. Some of the ideas I learned about will hopefully prove useful in doing the same at our college.

I attended a themed session about online teaching. (A themed session is one which has several mini-presentations by individuals.) I was surprised to learn that many instructors don't create their own course, but rather use pre-packaged material from publishers. Although I understand the convenience, when I teach online the first time in the Fall semester, I will develop my own materials.

In another session involving online learning, I learned about ways to effectively chat with students during online office hours, ideas for personalizing the online course (through voice recordings and video/pictures).

I also went to a session on common final assessments. At this college (I didn't write down the name), instructors identified 25 specific objectives to be tested, and then developed the exam. An item analysis was done and instructors with the best scores were encouraged to hold workshops on teaching the concepts which their students did best on.

I went to an interactive session on sharing ideas for growing AMATYC affiliates. Some of the ideas from other affiliates, to increase membership, include: offer one year free or "prizes" to new members and to persons who recruit the most number of new members; offer lifetime memberships; at annual affiliate conference/business meeting, offer door prizes of AMATYC memberships; make use of the AMATYC Traveling Workshops for an affiliate meeting; hold teacher preparation conferences; ask colleges for donations to conference.

I attended a session on Classroom Assessment Techniques by faculty from Los Angeles Valley College. Some of the ideas I learned about: (1) the "minute paper" – students are asked to write down the most important thing they learned about in class or what they did

not understand. The instructor admitted that the first few papers are disappointing, but students eventually get comfortable with it; (2) student generated test questions; and (3) ConcepTests – these are conceptual multiple-choice questions that were originally designed by Eric Mazur at Harvard University for students in large physics classes. The tests focus on a single concept that can't be solved using equations and have good multiple-choice answers.

I also ran into the Midwest Regional Vice-President, Wanda Long. I met Wanda during my first semester of calculus at the University of Missouri-St. Louis. At the time, she was the coordinator of the tutoring center (which I practically lived in). I also met up with my former boss at St. Louis Community College-Florissant Valley, Carol Edwards. I owe both of these women a great deal of gratitude for their guidance and encouragement.

Carol Edwards (left), Joe, Wanda Long

Spring 2005 MATYCONN Meeting/Workshop —
Fractal Music
Presented by Harlan Brothers

at Gateway CC, North Haven Campus, April 29, 2005

Miguel Garcia and Rachael Schettenhelm hosted the spring 2005 meeting and workshop at Gateway's North Haven Campus. After the business meeting and a wonderful lunch, Harlan Brothers treated MATYCONN members to a presentation on some characteristics of fractal music.

Harlan is a man of many talents. Currently serving as Director of Technology at The Country School in Madison, he holds five U.S. patents and has authored several research papers on the natural number *e*. He is also the founder of Brothers Technology (http://www.brotherstechnology.com/), a web company that creates a wide range of intellectual property for license and sale. Moreover, he is a performing composer and jazz guitarist, having studied at the Berklee College of Music in Boston.

Harlan has worked with Professors Michael Frame and Benoit Mandelbrot at Yale University, exploring the use of fractal geometry in mathematics education. He is presently involved in original research developing the field of fractal music; his latest paper is currently in submission at *Music Theory Online*.

What is fractal about music? While our minds may give music depth and dimension, even moving us emotionally, music is inherently one-dimensional, physically happening one instant at a time. In this presentation, Harlan shared some of his research and guided MATYCONN members in an exploration of some ways in which music may exhibit fractal characteristics.

Following a brief review of self-similarity (symmetry under magnification), including differences exhibited by natural and mathematically generated fractals, participants reviewed basic music theory background, including basic notation, time signatures, rests and dotted notes, and common time. Expanding upon these ideas, participants then investigated duration scaling (in which a power law relationship exists between a note's

duration and the total number of such durations) as one way to identify fractal music, working a number of exercises by hand. We went on to learn something about pitch-related scaling (in which a power law relationship exists between a note's pitch and the total number of such pitches) and structural scaling (in which patterns of notes repeat on successively larger scales); this was followed by a brief introduction to pulse trains (waves of rhythm propagating a piece of music).

The second half of the workshop provided participants the opportunity to work with Fractal Music Composer, created by Michael Frame, Ginger Booth, and Harlan Brothers (http://www.cbc.yale.edu/courseware/fracmusic.html, copyright Yale University 1997-2004 | CourseWare). Participants not only created our own fractal music, but then got to play our "compositions" for our colleagues.

The workshop was stimulating and a fun time for all!

Minutes MATYCONN
Meeting of April 29, 2005

The meeting was called to order at 11:25 a.m. by Alice Burstein at Gateway CC. The Minutes of the Fall, 2004 meeting were approved.

Treasurer's report. Bob Lynott reported that the balance in our account is $6902.36 which does not include dollars owed to the organization by colleges who participated in the contest. All were reminded to send checks to Bob at NVCC payable to MATYCONN.

Membership report. Membership directories were distributed. MATYCONN has 71 members including eight new faculty! We warmly welcomed the new members and thanked Cora for her excellent work as membership coordinator. Bob Lynott commended the campus recruiters for their fine recruiting efforts.

Math contest.—Steve Krevisky—MATYCONN is celebrating the 15th year of this event. We all thanked Steve for his energy and enthusiasm leading this effort all this time. Steve is asking for others to come forward and help write problems for the next contest. If interested, please contact Steve at MXCC.

There were four perfect papers and 2 students with scores of 39/40. Bob Lynott made a motion that we split the money among the four winners; motion seconded by Kathy Bavelas and approved.

Betsey made a motion that we give six plaques: 4 for the first prize winners and two for the students who placed second. The motion was seconded and approved.

Kathy Bavelas moved that we give $150.00 to each of the four winners; Steve seconded the motion which was unanimously approved.

Newsletter.—Elaine Dinto—Elaine thanked everyone who contributed to the newsletter on behalf of herself and Bonnie Simon who was not able to attend. The group enthusiastically applauded Elaine and Bonnie for their outstanding work on the newsletter.

Other business.—Alice reported that the Executive committee voted on line to donate $100.00 to hospitality for the 2005 AMATYC conference which will be held November 10-13 in San Diego, CA. Steve mentioned that there is still a chance to contribute to the Crossroads document.

Summer institutes will take place in NC and MI. See the AMATYC Web site for details: http://www.amatyc.org.

At the Orlando conference, Steve presented a workshop on the potential to form an international mathematics education group and suggested that we do a poster session in San Diego. Those interested should contact him or Joe Karnowski.

Joe and Steve attended the 1.5 day NEMATYC Conference where the idea of having a joint meeting with MATYCONN was discussed. Steve confirmed that the NEMATYC Board is indeed receptive to this idea; the group present indicated that they would be willing to attend as long as the meeting was held in southern New England.

There is a continuing concern among the 2- and 4-year colleges about the number of students who need developmental classes across the State. The Council of Presidents as well as the Governor is looking at best practices in developmental education. Next year, the Governor will examine education in mathematics and the sciences. Legislators and leaders in the business and academic communities will develop two white papers: one from the business community and one from the academic area.

The Math Issues Committee was concerned about the transferability of the elementary statistics course. There is also some discussion within the System about changing the placement instrument.

New business. Alice made the following announcements:

* ❖ The NCTM Conference will be held October 6-8 in Hartford at the new conference center. MATYCONN members were encouraged to come for at least a day! Get info at http://www.nctm.org.
* ❖ The summer fractal geometry workshop will be held at Yale August 8-12 with the three day follow-up on August 15-17. Email Michael Frame: michael.frame@yale.edu for info.
* ❖ The Center for Teaching must submit a budget to the System every year. This year's submission includes a *request* for grants for disciplinary workshops. Watch for that possibility in the Fall.
* ❖ AMATYC dues are going up after June 1 so pay your dues now!

There was some discussion about putting the Constitution on the Web Site. We all agreed that this was a fine idea.

The Fall MATYCONN meeting will be held at Three Rivers CC; no date was set at this time.

Election of officers. Alice Burstein proposed the following slate of officers:
* ❖ Joe Karnowski from NCC president
* ❖ Mark Leach HCC vice president
* ❖ Betsey Doane HCC secretary
* ❖ Deb Litwinko NVCC treasurer
* ❖ Jana Sime MCC membership
* ❖ Larisa Alikhanova Three Rivers CC minority scholarship
* ❖ Elaine Dinto and Bonnie Simon NVCC newsletter editors
* ❖ Steve Krevisky MCC math contest chair.
* ❖ Elaine Dinto Webmaster

There being no further nominations from the floor, the secretary cast one ballot for the slate. The entire group warmly thanked the outgoing officers for their excellent work and real dedication to MATYCONN.

We thoroughly enjoyed a wonderful presentation on fractal music given by Harlan Brothers!

The meeting was adjourned at 12:15.

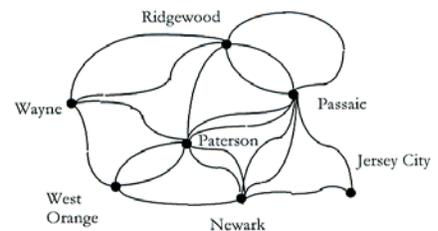Respectfully Submitted,

Betsey Doane
Secretary

Fall 2005 MATYCONN Meeting/Workshop

Let's Be Discrete – Problem Solving with Drs. Ray McGivney & Jean McGivney-Burelle

at Three Rivers Community College

by Elaine Dinto, Naugatuck Valley

What do these problems have in common?

1. A graph of highways in northern New Jersey is given to the right. A plan must be devised to plow these roads after each snowstorm. To ensure that the roads are cleared as quickly as possible for emergency vehicles, the plan should permit trucks to leave the garage in West Orange, plow each road once and only once, and return to the garage. Can this be done? Explain.

2. You are chair of a Blue Ribbon Commission to recommend a policy. After many hearings, your committee finds that it has three options: (A) Allow unrestricted use of embryonic stem cell research; (B) Ban all use of embryonic stem cells; (C) Compromise by using only embryonic stem cells of embryos that are going to be destroyed. This results in the preference ballots shown. Based on this vote, which alternative should you recommend to the President (and why)?

A C B	B C A	C B A	A C B	B C A	B C A	C B A	A C B	B C A	C B A	A C B	A C B

3. Births are spread more or less randomly throughout the months of a year. Choose any 5 persons. I'll bet $1 that at least 2 of them were born in the same month. Use a simulation with twenty trials to decide whether you would take the bet.

The above exercises are a few of the engaging, real world problems co-presented by Dr. Ray McGivney and his daughter, Dr. Jean McGivney-Burelle, at the October 21, 2005 MATYCONN Workshop hosted by Three Rivers Community College, Mohegan Campus, Norwich. Participants solved network problems by "Eulerizing" a graph and using a "greedy" algorithm which extended our knowledge of graph theory. We used sequence mode on the TI-83+ to solve a wildlife management (recursion) problem, as well as the calculator's APPS feature to solve a financial math problem. We explored non-standard voting methods and saw that the winner of an election depends not only on the votes cast but also on the method used. Using the random integer generator on the TI as the model, we simulated "having babies, right here, right now" to solve the Chinese Birthday Problem (a proposed population control method limiting Chinese families to one son), as well as the Birth-Month Bet stated above and an example from a popular Board-Game. Jean, who co-presented with Dad for the first time, created and executed the PowerPoint; she assisted with explanations and solutions, while Ray continually interspersed bits of historical background, adding further interest to the problem situations through his knowledge, charm, and wit. The workshop was informative, challenging, and thoroughly enjoyable!

The above exercises and others explored at the workshop represent a few of the types of discrete math problems found in *Contemporary Mathematics*, Professor McGivney's textbook used at the University of Hartford. The roots of the text date back to 1988, when the state of Connecticut ruled that that all baccalaureate-granting institutions require a "broad liberal arts curriculum"; after that time, students at two of the University of Hartford colleges, both with international reputations as schools of performing and fine arts, were no longer free to concentrate exclusively on courses required for their majors, but for the first time were required to take a math course. The university's existing introductory level math courses (statistics, precalculus, a short course in calculus) did not seem appropriate for this audience, thus Ray and a colleague began to draft notes for a new course, giving rise to the current *Contemporary Mathematics*.

Realizing that the study of mathematics might be a low priority for this new set of students, many of whom either had a painful math history or simply did not like the subject, the goals of the course were to introduce students to topics not commonly found in the high school curriculum, to demonstrate the power of simple mathematical models, to concentrate on applications rather than theory, and to illustrate the usefulness of mathematical software.
While the course is taught at a mathematically sophisticated level, because of the choice of topics, strong algebra and geometry skills are not essential for success. The course, which has the largest math enrollment at the university, is now taken by those majoring in elementary education, fine arts, music and humanities; it is very popular on campus, especially welcomed by adult learners who have always had a fear of mathematics. The latest edition of *Contemporary Mathematics* consists of six independent chapters, related only by the fact that each focuses on applications of a mathematical model; these include voting methods, truth tables, set theory, simulation, recursive functions and graph theory.

When asked if he would share some personal and professional information with MATYCONN members, Ray proudly stated that daughter Jean had earned her PhD at UConn, in mathematics curriculum instruction, with a concentration in mathematics. Having taught at UConn for five years, then last year at Millersville, Pa., currently she is in her first year at the University of Hartford where she is directing the new secondary certification program, with the expectation of having the program open to students next academic year.

Ray gives his involvement in the MATYCONN workshop credit for bringing him out of the "dinosaur age." Admittedly the "low-tech" one, he confessed that he had planned to use transparencies at the workshop, but that Jean would not hear of this. Seeing how easily Jean put things together in PowerPoint, he welcomed the opportunity to learn from her; since then he discovered quickly that he could go to the internet during class for applets or pertinent information such as on voting issues, has learned Blackboard and plans to put all of his lessons on PowerPoint to make lessons more interesting and future updating quick and easy.

While his family necessarily moved around quite a bit when he was a child, Ray considers Auburn, Massachusetts, his hometown. He earned his Masters in Mathematics from Clark University in Worcester, then his PhD in Mathematics at Lehigh University, in Bethlehem, PA. He taught for six years at Lafayette College in Easton, a liberal arts and engineering college, before moving to Connecticut in 1970 to take a job nearer his and his wife's roots, at the University of Hartford.

Founded in 1877, the University of Hartford was chartered in 1957, under the governorship of Abraham Ribicoff, in the joining of the Hartford Art School, Hillyer College, and the Hartt School of Music. All looking for appropriate space, each offered something to the merger and together they formed a unique combination of curriculum and teaching disciplines to serve the

greater Hartford area. In 1970, Ray was one of six new hires in the Mathematics Department which was being reorganized at that time. The university moved from the streets of Hartford to the Bloomfield Avenue campus in West Hartford. Today that campus consists of 340 acres and serves as the center of the university, attracting more than 7000 students from 46 states and 54 countries, who are enrolled in 86 undergraduate majors and 32 graduate programs.

Arriving at the University of Hartford at such an exciting time, Ray embraced the opportunity afforded him to shape the future of the department. A Professor of Mathematics, he has served the campus in other capacities, including acting Dean of Students twice during the 1970's and Department Chair from 1981-1988.

When asked how his *Contemporary Mathematics* text has evolved over the years, Ray answered that, for one thing, it has evolved technologically: originally it was used in conjunction with math software from Dartmouth College called "Discrete Math." As graphing calculator capabilities grew and using the computer became unwieldy, a switch to the TI-83+ took place. Linear programming, probability and statistics were omitted, as was some work pertaining to set theory which could not be done on the calculator, but applications of the Fibonacci sequence to music and art and simulation topics were added. Word has gotten around, students finally see how math is used and realize it makes sense, and they love the course!

Besides working full time at the University, Ray has worked nonstop to promote mathematics in the larger community. He speaks at one or two conferences per year, has done numerous talks for ATOMIC, and has presented at CAMPY for years. One major project was an "On-site, In-service" project sponsored by PIMMS (Project to Increase Mastery of Mathematics and Science) from 1992-1994, where math and science teachers went into twelve different high schools throughout the state, inner city to suburban to rural, from Waterbury to E. O. Smith in Storrs, Weston to East Granby; they spent 10-12 full days per year working closely with dozens of high school teachers, giving workshops, writing curriculum, introducing appropriate uses of the graphing calculator. Another major event involved consulting in several area towns regarding middle school curriculum, what's important and what's not, strategies to accommodate different learning styles, and giving summer workshops involving inter-district, residency programs for kids.

Ray now is spending more time writing at his Enfield home. Three of his four children and his seven grandchildren, ages 9-1, live in the area, so he is able to enjoy their many visits. He loves to garden, where his interest has shifted from vegetables and annuals to landscaping and more "low maintenance" gardening including perennials and shrubs. Another new hobby is film and video editing; the proud owner of an iMac, he shares this hobby with his wife. He laughed thinking of his family's reactions as "McGivney launches his videos..."

When asked if he had any other comments he would care to share, Ray humbly responded "Thanks to MATYCONN for the hospitality. I enjoyed the experience and hope to see you again down the road."

If you have any questions regarding the University of Hartford's Contemporary Mathematics course, you way write to Ray at *mcgivney@hartford.edu*. Note: This writer is truly grateful to Professor McGivney, not only for his time in presenting at the MATYCONN Workshop, but for graciously answering all of my questions in his warm and friendly manner, and for permission to quote from *Contemporary Mathematics* for this article. May the wind be ever at your back, Ray!

Minutes MATYCONN
Meeting of October 21, 2005

The meeting was called to order by President Joe Karnowski at Three Rivers CC at 12:55.

Betsey distributed the minutes of the spring meeting which were approved as amended on a motion made by Kathy Bavelas and seconded by Mark Leach.

Treasurer Deb Litwinko distributed the treasurer's report which was approved on a motion made by Steve Krevisky seconded by Kathy Bavelas.

Jana reported that there are 3 new members giving us a total of 63 dues paying members. There was a discussion about the necessity of putting together a paper copy of the membership directory. Some felt they really wanted a hardcopy while others felt that the information on the Web site was sufficient. Kathy suggested that each be asked about whether they want a paper copy; perhaps enough could be made to distribute to those who need it. There was also discussion about emailing the information as well as distributing copies to campus contacts.

Andre Freeman agreed to be campus contact at Capital CC; Rachael Schettenhelm will be our contact at Gateway. Thanks to all the campus contacts who continue to recruit new members and encourage renewals.

Nominating committee.--The following members agreed to serve on the nominating committee: Sandy Pettinico, Elaine Dinto and Deb Litwinko. The proposed slate of officers should be sent to the campus contacts for distribution.

Math Issues Committee.--Kathy reported on the Math Issues Committee. There was a statewide meeting of teachers K-12, reps from UCONN, the four state universities and the CC System which tried to answer the question: What can we do to ease the transition from high school to college? We have been called to have a debriefing and set up an agenda for further action. They looked at a K-16 model from Maryland. What goals do we have for bridging this gap between high school and college? For example, every CC and university has different cut-off scores on the placement test.

On behalf of the Math Issues Committee, Pat Hirschy is spearheading an effort to resolve inconsistencies in CC statistics course transfer.

The committee is concerned about maintaining the common course numbering system with respect to the 80% common syllabus topics.

Miguel would like to see MATYCONN include a workshop on the difference between college algebra and precalculus.

MATYCONN Scholarship. -- The scholarship committee chaired by Larisa worked very hard to produce documents which describe and implement the scholarship application process. These documents were presented at the meeting and the following changes adopted:

Under Purpose: The annual MATYCONN scholarship program recognizes individuals who are successful in mathematics and enrolled in degree programs at Connecticut Community Colleges.

There was a great deal of discussion about the guidelines/eligibility criteria. Andre made a motion seconded by Steve to make the following change:

- Original: Have successfully completed at least 3 mathematics courses, including Calculus I, in the Connecticut Community College System
OR
Have successfully completed at least 3 mathematics courses in the Connecticut Community College System, at least one of which is above the Intermediate Algebra level and one is below.

- Change: Have successfully completed at least 3 mathematics courses, at least one of which is above Intermediate Algebra, in the Community College System.

The motion passed 18 in favor, 1 opposed and 1 abstention.

Newsletter.--Send articles for the newsletter to Bonnie or Elaine. Think about the possibility of an electronic newsletter because it is expensive to produce in this format.

Math contest.--The 16th annual mathematics contest will take place on Saturday, April 1, 2006 on your campus. Send Steve problems—he asked for a committee to assist him in this area. Sandy Pettinico, Cora Preibis, Ron Blevins and Andre Freeman agreed to help. We were encouraged to recruit students and send $50 to Deb toward the prizes.

AMATYC.--The AMATYC meeting will be held in San Diego November 10-13. Steve and Joe will be delegates from MATYCONN. They will be voting on endorsing the *Beyond Crossroads* document which talks about standards. There is also discussion about raising the national dues automatically according to the Consumer Price Index. No one supported such a raise at this meeting.

Are you interested in AMATYC's proposal of mathematics across the curriculum? Send in comments.

Spring meeting.--NEMATYC invited us to join their spring, 2006 conference in Manchester, NH on the weekend of April 21-22. Alice Grandgeorge made the motion that we support this joint effort. Manchester CC would be our backup site. The vote was in favor of this proposal.

Manchester CC needs tutors on Saturday's in the mathematics learning center. Please get the word out.

Steve passed around two articles about mathematics education for possible discussion at another MATYCONN meeting.

Steve moved to adjourn the meeting. The motion was seconded by Betsey.
The meeting was adjourned at 2:10.

Respectfully Submitted,
Betsey Doane
Secretary

Yale Fractal Workshop
Submitted by Joe Karnowski, Norwalk CC

I attended the two Yale Fractal Workshops this past summer (August 8–12, and August 15–17). This was the best professional experience of my life! Not only did I learn everything I wanted to know about fractals (and more), but I also met many other math educators from other colleges and high schools. Each day, we learned about the various applications of fractals and participated in hands-on activities. I thoroughly enjoyed the two lectures given by Benoit Mandelbrot.

Joe and Benoit Mandelbrot

- -

Note: Professor Mandelbrot has recently retired from Yale and moved to Boston, to be near his grandchildren. Over the past few years, many of us have had the pleasure and privilege of meeting him and participating in his presentations at the Summer Fractal Geometry Workshops; we wish him a most enjoyable retirement.

Interested in submitting an article to the Connecticut Mathematics Journal?

Articles should be of interest to K-12 mathematics teachers in the following areas:
- Research in mathematics education involving any topic related to K-12 mathematics;
- Activities for the classroom, shared by two departments: CAPT Corner that shares CAPT-like problems secondary school teachers could use in the classroom and C^2MT— Connecting Connecticut's Mathematics Teachers which asks teachers to share activities that have been particularly successful;
- Articles about topics related to mathematics education at the K-12 level.

 ATOMIC's *Connecticut Mathematics Journal* is an excellent vehicle by which one can share work.

Articles can be submitted by email (hartogm1@southernct.edu) or at the following address: Marty Hartog, Southern CT State University, Math Dept., 501 Crescent St., New Haven, CT 06515, (203) 392-5595.

Reflections on National Council of Teachers of Mathematics Conference in Hartford, CT

Submitted by Elaine Dinto, Naugatuck Valley CC

As most of you probably know, Hartford was host to the NCTM Eastern Regional Conference and Exposition, *DISCOVER the CONNECTIONS: Instruction and Assessment*, October 6–8, 2005. Many math educators from across the state presented at the conference and numerous others worked to ensure that things would run smoothly. The focus, as indicated by the conference's title, was on connections between instruction and assessment and there were sessions for K–12 teachers of all levels.

Workshops were spread out between the new Connecticut Convention Center, the Hilton Hartford Hotel, and the Marriott Hartford Downtown. I was very impressed with the new Convention Center, which is located on the easternmost edge of downtown Hartford overlooking the Connecticut River at Adriaen's Landing; access was easy and parking was sufficient.

I attended sessions all day, but unfortunately was unable to get into a few that I had been looking forward to. In order to get some new ideas for my Math for Elementary Education course, I attended several sessions designed for elementary and middle school teachers. My favorite sessions included *Quilting through the Curriculum*, *Fractions and Geometry with Manipulatives*, *Geometry: Ideas and Activities to Motivate and Check for Understanding*, and *Unlocking the Fibonacci Puzzle*. I especially liked *Connecting Music with Mathematics*, by Natalie Ann Kelly and Leah Nowman, where they demonstrated very creative activities to help students explore equivalent fractions, operations with fractions, and how to read and write music using special fractions. I also enjoyed *Engaging Your Students with Discrete Mathematics!* by Dave Kennedy, where we literally whirled through a survey of discrete math topics that included Pascal's triangle, recursion, and fractals.

I even found time for a quick walk, and at one point when I needed a short break was delighted to find myself sitting across from an old friend from Southern Connecticut State University, Leo Kuczynski (Professor Emeritus of Mathematics). He looks wonderful, is keeping busy and enjoying his retirement — he said to be sure to say hello to all of his friends from the Math Basic Skills Committee!

NCTM Regional Oct 6 – 8, 2005

Submitted by Kathleen Bavelas, Gateway CC

I really have decided I like the Regionals better than the National (Conference). The number of workshops is smaller but the quality is excellent and you do not have the problem of needing at least 20 minutes to get from one workshop to another just to find it is already filled. I spent Thursday at the Hilton Hartford as a volunteer. Had a wonderful time meeting and greeting old and now new friends. We had a wonderful pre-service teacher who had volunteered to help, but this was her first big conference. Once things settled down after each major session time started, we were able to tell her go sit in on a session and each session ending time she returned with that wonderful glow of a first-time attendee.

Friday was my day to attend sessions. I prepared to do battle with Hartford traffic so I could make the 8 am session *Isaac Newton: A Dramatic Lecture*—only to rush and get to the room to find it cancelled; but since it was a regional I went to my second choice *Secret Agent Al G. Braicprop.* This session emphasized how the number properties play such important roles in cryptography. I knew the identity and inverse properties played a major role but was most impressed with the classroom activities Ms. Chin prepared. It was wonderful! Then I attended the Richard Balomeno lecture. Ken Sherrick, a wonderful long time colleague, had been elected to give this year's lecture—very much of an honor. Ken titled it *Its not Your Father's Algebra* and he took us down the memory lane of algebra from the 50's to today—what it was, what it is now and his personal thoughts on what it will become. Ken is a wonderful speaker and the room was filed to capacity.

Then I hit Gail Burrill's session. I first made her acquaintance in 1985 and never miss her if she is on the program. She did some math problems that would challenge students and teachers to think about some big ideas, and provoke many different strategies. Excellent, of course! It was noon but I wanted to attend the *Helping Teachers Reach the "Tough to Teach,"* an Algebra session. Activities were good but I had used most so I snuck out early to grab a sandwich and take my pills so I could attend the *Magic and Mathematics* session at 2. Ed Burger from Williams College was presenting and if you have never seen him in action you have not lived mathematically. I got there early and after a few moments Leo Kuczynski, the now retired but former chair at Southern, sat next to me. We had a wonderful time catching up and, of course, Ed was fantastic. By now it was 3 PM. I had gone non-stop since 8 and confronted the Hartford commuter traffic from Waterbury to Hartford in the AM. At 4:30 we had been promised a special session with one of the actors from the Friday *NUMBERS* TV hit. I had promised myself that now that I was "retired" I would not overdue so I sat for 15 or 20 minutes and realized how tired I really was and escaped into the early part of the Friday rush hour home. A wonderful, productive day!

Contemporary College Algebra Workshop
Presented by Don Small, U.S. Military Academy

Submitted by Kathy Bavelas

On December 15 and 16, recall the 15th was the eve of that lovely snow/ice event, a number of us gathered at Gateway CC North Haven to discuss the state of college algebra. Don Small from the US Military Academy guided us through some of the experiences he has had with a project partially funded by NSF, The Exxon Education Foundation and Project InterMath. The forecast reduced our numbers but not our enthusiasm. We woke up on the 16th to delayed openings around the State and for once my reputation at home as a weather bug paid off — I stayed overnight at the Holiday Inn — so I had no problem attending the Friday session. Brave souls like Elaine (from NVCC) and Mark (from Housatonic) made it in with some harrowing adventures. Don Small shared his experiences with refocusing college algebra and we had some hands-on practice with materials from his text *Contemporary College Algebra*, 5th *ed.*, which had been one of the products of the grant. We examined some data such as who takes College Algebra — some Miami Dade data — of 818 students in fall 2003, 15.8% declared majors that required calculus, 19.3% had declared majors that required the business Calculus and 64.9% had majors that either only needed the college algebra course or had yet to specify a major. We were given a lovely web site, www.ContemporaryCollegeAlgebra.org, which is a wonderful site with projects for students and interesting ideas. The philosophy of the movement, "to educate students for the future rather than train them for the past," is certainly a statement to be reckoned with. The movement to re-examine our college algebra and precalculus goals and objectives is not new but perhaps has not been given the attention and examination it should in Connecticut. We are using Don's text this semester at Gateway and I know while I was at MCC, a precalculus text along with teaching practices that supported that philosophy was being used at MCC. It is not only what we teach but how we teach.

Don will be returning May 31– June 2 to continue the discussion. You need not have attended the December discussion to come in May. Miguel of course has been the liaison, but with his recent surgery, has asked John Callahan, a new member of the GWCC math faculty, and me to plan the workshop. Don is set to come (just confirmed as this goes to press) and John and I will be emailing and sending out flyers to departments as soon as we get the program in order. Please though set the dates aside. Tentatively we are thinking mid-afternoon and evening (pizza) on the 31st followed by 8:30 to 4:30 or so on Thursday and 8 to 3 on Friday so folks can beat the rush hour traffic, maybe an optional dinner on Thursday (at attendee's own cost); we need to work this out with Don. Hope to see you there!

SAVE THE DATE

Wednesday, May 31 – Friday, June 2, at Gateway CC, North Haven campus.

Join the national debate!

College Algebra: Who Does It Serve? What Should It Be? How Do We Prepare Students for the Mathematics Needed in the Future?

Don Small, faculty at the U.S. Military Academy, will help us focus the debate and get some hands-on experience with some of the recommended changes.

International Math Education

Submitted by Steve Krevisky, Middlesex CC

Do you dream of travels to far away and exciting places? You will soon have an opportunity to do this. Next summer, in Salvador, Brazil, is the next International Conference on Teaching Statistics (ICOTS), which is held every four years in various locations around the globe. It was in South Africa in July 2002, which was a memorable experience. At these conferences, you meet people from all over the world, go to workshops, exchange ideas, and get to see a new part of the world. People who are interested in this conference should check out the website, which is http://www.maths.otago.ac.nz/icots7/icots7.php. You can also contact me at skrevisky@mxcc.commnet.edu.

Also, the International Congress on Math Education (ICME) takes place every 4 years, in different regions of the world. I was fortunate to get full or partial travel grants to attend the ICME in Japan in 2000, and the ICME in Denmark in 2004. The benefits are similar to those that you get from the ICOTS, but you are dealing with broader aspects of math education. You pick out one topic group, and one discussion group that you go to, and there are special sessions on math education in different countries. There are also excursions in both conferences, so you get the flavor of the region that you are visiting. Marilyn Mays has been one of the organizers of the session on Two Year Colleges and other Tertiary Institutions, and I have been part of all of these sessions as well, going back to the ICME in Seville in 1996. In this session, we share information about the structures of our 2-year institutions, our common problems, and what issues we hope to focus on. Many of the same people whom we met in Japan were also in Denmark, but the new people contributed nicely as well.

The next ICME will be held in Monterey, Mexico, in July 2008, so I hope that many of us can attend. It is a good experience, and I highly recommend it! Meanwhile, as a result of my presentation at the AMATYC conference in Orlando in 2004, we have tried to organize an AMATYC A-NET group on international math education. This matter was discussed at the Faculty Development meeting at this year's AMATYC conference in San Diego. We would like to see this group really get off the ground, and anyone who is interested in being part of this should contact me as the address above. I feel that this is a good direction for AMATYC to go in, and I hope to hear from you soon on this matter. We might want to do a presentation on this matter at a future AMATYC conference, prior to the next ICME in 2008.

Start your trip planning now — it's a good mix of professional development and vacation!

Steve K's Odysseys
by Steve Krevisky, Middlesex CC

Once again, I have enjoyed being on the road! I spent 5 weeks up in Canada last summer, mostly in Quebec and the Gaspe Peninsula, where I enjoyed the great views of the St. Lawrence River, seeing whales dive in and out, near Riviere-du-Loup. The Rock at Perce, near the eastern tip of the Gaspe, was a real highlight as well. Quebec City and Montreal are great cities, and I enjoyed the SABR (Society for American Baseball Research) convention in Toronto. I did a presentation about former Yankee Elston Howard, who was the Most Valuable Player of the International League in 1954, playing for the Toronto Maple Leafs (not the hockey team!). Our team won the trivia championship, and I also saw the Yankees play 3 games against the Blue Jays, up at the Skydome.

In November, I attended the annual AMATYC convention in San Diego, where I again presented, presided and served as a Delegate. It was busy as usual, but I did make time to go to beautiful Balboa Park, where I visited the Sports Hall of Champions museum. I also became the Northeast Region representative to the AMATYC Teaching Excellence Committee, so I hope you all apply!

Sports Hall of Champions Museum, Balboa Park, CA

Over the holidays, I visited friends in Albuquerque, New Mexico, where I also attended the annual holiday Lobo Invitational Basketball Classic, won again by the University of New Mexico Lobos. I then toured West Texas, finding some great baseball cards in a shop in Amarillo, where the Yankees had a farm team in the early '60's. I enjoyed the western scenery. I got to see Carlsbad Caverns, Guadalupe National Park, and also took the train from El Paso to San Antonio. I attended the MAA meetings there, as a campus MAA liaison, and enjoyed the Math and Sports section, where I presented last year. The Riverwalk was fun, and I got to meet the President of the Texas League, and talk to

Sunset near Carlsbad Caverns, southeastern NM

Guadalupe National Park in west Texas, just across the NM state line

the broadcaster of the San Antonio Missions. I also saw animals crossing the road, right in front of me, in a Safari Park near San Antonio. There were bison, zebras, elk, and many others. A bison blocked the road, right in front of me, and I had to wait for the right time to get around it!

TEXMATYC Conference, Houston, February 2006

In February, I presented at the TEXMATYC conference in Houston, on *History and Statistics on the Astros*. I even found an old-style Jewish deli near the Galleria.

I will be traveling through Arkansas over spring break, culminating in doing a presentation at the SABR Deadball Era Conference in Hot Springs, where the major league teams used to train.

In April, we will give the 16th Annual Math Contest, and I will present at a recreational math conference in Lake Tahoe, as well as at the joint MATYCONN-NEMATYC conference in New Hampshire. This is an event which many of us have wanted for many years. I am also looking into a Northeast Regional conference, perhaps for 2009.

In May, I will attend the New Mexico MATYC conference in Las Cruces, and I will give a paper at the International Conference on Teaching Statistics (ICOTS) in Salvador, Brazil, in July (right after the annual SABR conference in Seattle in late June). This paper is a shortened version of a talk that I have given at various AMATYC conferences on *Who Are the Best Sluggers in Baseball*?

Meanwhile, baseball season is coming, right after the NCAA FINAL FOUR, and I look for good things from my Yankees! I do get many Red Sox fans in my classes, however.

Anyone want to join me in Brazil?
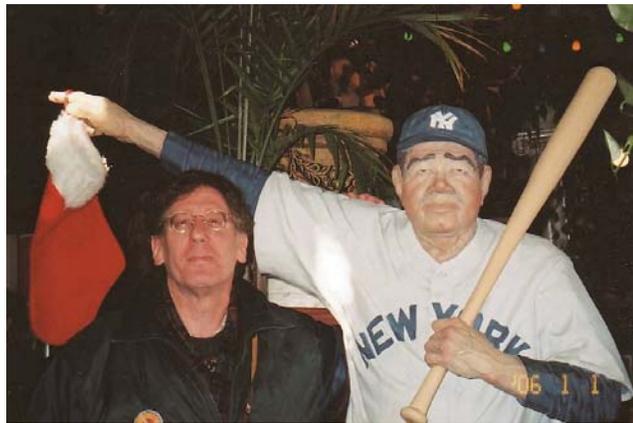
Steve and the Babe —
Together at a restaurant in Albuquerque,
near the University of New Mexico

Parting is such sweet sorrow…

by Bonnie Simon, Naugatuck Valley CC

It was 3 years ago when I was notified that my National Science Foundation (NSF) Proposal, "*Partners to Attract and Sustain Adult Learners* (PASAL)" was accepted and would be funded. The years have flown by, the rewards have been many, and knowledge gained has been immeasurable. I am going to Washington in April to present my findings but I also wanted to briefly share them with you.

The two-fold objectives of PASAL were to increase enrollment in STEM (Science, Technology, Engineering, Math) degree programs and to increase the number of STEM graduates or transfers. Recruitment from the college's own population of undeclared, general studies, and continuing education students was supported by faculty, an Early Alert Liaison, a Project Coordinator, and the college administration. Recruitment activities included informational bulletin boards, weekly information sessions, choose your major week, presentations by Industry Partners, website development, film series, and a Tech Expo. Retention strategies included virtual visits to Industry Partner sites; business, faculty, and peer mentors; tutors; guest lecturers in a STEM designated mathematics class; study groups; support from the Early Alert Liaison; academic scholarships; transfer fairs, and employment opportunities.

We learned that there must be campus wide support to advise and encourage students to enroll in STEM majors, students who had a linkage with industry appeared to persevere more than their counterparts, tutoring and mentoring are essential components to retention, and it is easier to "convert" undeclared students from upper level courses than from developmental courses. Transfer rates increased, as we desired, but graduation rates remained the same.

While this most worthwhile project is over, my friendships and contacts linger.

Math Immersion and Master Tutoring Grant

by Marlene Olson, submitted by Alice Burstein, Middlesex CC

Middlesex Community College was awarded a $50,000 grant for its Math Immersion and Master Tutoring program, launched in August of 2005. Part of a MetLife Foundation initiative recognizing creative programs that support community colleges in meeting the educational needs of their communities, the program provided pre-freshman, at no additional cost, with the opportunity to refresh their math skills before the semester started. These students registered for one of two Math Immersion courses that offered academic support for students placing into remedial Math 075 or Math 095; students who successfully passed their class were eligible to take the next level at the start of their freshman year. Support continued throughout the fall semester with the Master Tutoring Program, with tutors providing out of class assistance.

Data showed that the retention rate for the fall semester of students in the initial Immersion group was above average; surveys for this first group showed that the students and the professor agreed that the pre-freshman experience has a positive impact on students. Follow-up Math Immersion courses were scheduled for intersession.

Achieving the Dream

By Joe Karnowski, Norwalk CC

During this past school year, I was enlisted at my college to participate in an initiative called "Achieving the Dream." According to the Lumina Foundation, one of the sponsors, "this initiative is a national effort to increase the success of community college students, particularly those in groups that have been underserved in higher education." To do this, NCC must create a culture of evidence and accountability, as well as a commitment to equity and excellence. Since my role in this project is Data Team Co-chair, I have been primarily involved in collecting and analyzing data. Two other colleges in Connecticut, Capital and Housatonic, were also selected to participate in Achieving the Dream.

By Sheila Anderson, Housatonic CC

Research on math instruction and student competency in math highlights that students too often view math as a series of unrelated rules and formulas. Success in math depends upon a student progressively building math knowledge and skill. The rate at which this learning occurs is very individualized, thus "lock-step" presentation of math concepts to whole classes bores the quick learners and frustrates the slow learners. A program which permits individualized self-paced instruction such that each student masters each math concept before moving on to new concepts is desirable.

One of Housatonic's "Achieving the Dream" priorities is to increase success in math courses, especially MAT*075 and MAT*137. To accomplish this, in fall 2007, MAT*075 and MAT*095 are going to be offered in an open entry/open exit competency based format. This entails dividing the courses into modules in which the student must show competency prior to continuing to the next module. The student may take as much or as little time to complete each module as needed. The instruction will utilize a software program (to be determined) that permits individualized instruction. An instructor will be present with the students during class time. Additional support for the course includes the availability of tutors and outside program accessibility.

Guess who's coming to Matyconn?

From Capital Community College

Leonel Carmona joined Capital Community College in 1990 and became a full-time mathematics instructor for the Science and Mathematics Department in 2005. He has a wide-range variety of college level teaching and tutoring experiences in the areas of mathematics, physics, chemistry, electrical engineering and computer engineering. Leonel also has extensive knowledge of laboratory instruments, programming and technology including the use of WebCT and Vista. Additionally, he has skills in computer-based programs used in math applications and TI graphing calculators and has presented numerous graphing calculator workshops to faculty, staff and students. He has held several positions at Capital, the most recent as the former Math and Learning Center Program Coordinator.

In addition to teaching and tutoring, Leonel enjoys participating on college-wide committees. He currently serves on the College Senate and Assessment to Mathematics (AAM) committee. As past president of Phi Theta Kappa, Capital's honor society, and past vice-president of Capital Community College Alumni Association, Leonel has been responsible for directing board members, conducting meetings, working on scholarship fund-raisers and participating in other projects.

Leonel's Capital teaching experiences as well as his bilingual ability provide him the opportunity to successfully work with students from urban, non-traditional, multicultural backgrounds. While at Trinity College, he worked in a team partnership with Trinity students in the Engineering Department as a team leader of the United Technologies/Trinity College Initiative, a program that focused on high school women and minority students who were interested in engineering.

Leonel has an Associate Degree in Liberal Arts from Capital Community College, a Bachelor of Sciences in Engineering with concentration in Electrical Engineering from Trinity College, and he will complete his Master of Arts in Mathematics in December 2006 from Central Connecticut State University.

Andre Freeman joined the full-time faculty at Capital Community College in the Fall 2004 semester. In addition to his teaching responsibilities, Andre has helped to advance the mission of the college via his participation and contributions to various sectors of the College. Andre has served on the Curriculum and Planning Committee at Capital and as Capital's Teaching and Learning Consultant for the Center for Teaching. Currently Andre is the Developmental Mathematics Strategy Team Leader for the Achieving the Dream Initiative at Capital.

In his brief tenure at Capital, Andre has taught all levels of mathematics ranging from developmental mathematics to Calculus II. He is an active member of the Science and Mathematics Department, contributing to the ongoing curriculum development and mathematics assessment activities with other mathematics faculty.

Andre Freeman was raised in the Greater Hartford Area and graduated from Bloomfield High School in Bloomfield, CT. Andre received his Bachelor's degree in Mathematical Sciences at Worcester Polytechnic Institute (WPI) in Worcester, MA and his Master's degree in Applied Mathematics from WPI. He completed his graduate thesis in Graph Theory on Dual-Eulerian Graphs.

"I enjoy carpentry, teaching tennis to children, and mentoring young people. On January 8th, 2006, Shola Freeman and I became the proud parents of their first child, Amecca Jules Owodunni Freeman.

From Gateway Community College

John Callaghan was hired at Gateway Community College in January. He began his career in mathematics as a student at Greater New Haven State Tech, now Gateway. Subsequently he worked as a volunteer at Middlesex Community College and then matriculated at Trinity College in Hartford where he earned a B.S. in Mathematics. Later he earned an M.A. in Mathematics at Central Connecticut State University and he has completed advanced coursework at Wesleyan University in Middletown. "In the interim, I taught for 5 years at Central before earning state certification as a grade 7-12 math teacher. I then taught for 5 years at Windham High in Willimantic before accepting my present position at Gateway." He adds that it's good to be "home"!

John is married to Dr. Nancy Wyshinski, the first women to chair the mathematics department at Trinity College (in the nearly 200-year history of the school). "I live with her and my 17-year-old daughter in Marlborough, along with a pair of Labrador retrievers, a toy poodle, not to mention a 4 pound Yorkshire terrier named Max and a 15 pound yellow cat! I am an avid salt-water, big-game fisherman and I am currently restoring a 1964 Chevelle SS. My hobbies also include gardening, reading, and, of course, math!"

Tingkang (Ken) Shen was hired in January at Gateway Community College as a math instructor. Prior to being hired as a full-time faculty member, he had been an adjunct math instructor at Gateway teaching and tutoring all levels of math courses. During his temporary position, he felt that he belonged there; "I liked the people and working

environment, so decided to apply for a full time position although I knew it would not be easy for me."

He was born in China and was a math teacher in a high school for over ten years before he came to the United States to continue his mathematics education. He earned masters degrees in both mathematics and computer science at Ball State University in Indiana.

"Ken is my English name, which is easier to pronounce and I like this name. I am doing my best to contribute to fulfilling Gateway's mission." Besides teaching a variety of math courses this semester, he is also gathering and helping interested students to participate in the MATYCONN math contest.

In his spare time, Ken loves to watch NBA games. He claims, "The LA Lakers and Houston Rockets are my favorite teams (because Yao Ming is a big guy in the Rockets)." He also likes baseball and his favorite team is the New York Yankees.

"I love math and teaching. I have always dreamed of being a college teacher and now my dream has come true!"

From Housatonic Community College

Eddie Rose is a new faculty member at Housatonic Community College. He has an AS degree in Accounting from South Central Community College, a BA from Albertus Magnus in Business and Economics, and an Ed.M from Harvard in Mathematics Education. He brings many years of teaching experience from such schools as Southern Connecticut State University, Quinnipiac, University of New Haven, and Gateway. He also has experience in a variety of teaching environments; he has taught adult education and high school and has participated in several special programs. His Department Chair, Sheila Anderson, has stated "We are delighted to have him join the Developmental Studies Department!"

From Northwestern Community College

Born and raised in Kalamazoo, Michigan, **Amanda Buckley** went to Cornell University and graduated with a BS in Operations Research/Industrial Engineering. She worked as a manufacturing engineer for 5 years, during which time she went back to school and earned an MEd in Mathematics Education. Her daughter was born in 1993 and she started "adjuncting" at community colleges. She returned to engineering in 1997 but felt the pull of teaching and took the plunge into public education at North Andover HS, in North Andover, MA. In 2000, she left teaching to pursue another stint in engineering but the pull to teach was once again too strong, and she moved to Kent, CT to teach at Kent School. After leaving Kent School in 2003 she secured a full time position at Post

University supervising their Academic Skills Center, but "when the opportunity for a full time faculty position came up at NWCC, I applied and was fortunate enough to get the position."

Amanda really loves working at NWCC. She says her "colleagues are great—funny, super supportive—and just really great to be around." She also enjoys the students, which was a major factor in applying for the job. "I had adjuncted at NWCC in Fall 2004 and so enjoyed the staff and students I couldn't imagine a better place to work. And I was right." She really enjoys teaching the developmental math courses — "Nothing's more rewarding than seeing the light bulb go off, particularly in a student who hasn't seen/done math in 20 years or is dead-set convinced they 'stink at math.' My favorite students are those who would rather have their fingernails pulled out one by one than do math — if I can help them be successful, then I've done my job. I also enjoy my 'bright lightning' sections as well. I think every instructor needs a balance with developmental and more advanced courses, and I've been very fortunate to be offered both types of courses to teach at NWCC."

In her "spare" time, she likes to run, hike, and generally be outside as much as possible. "My 12 year old daughter is quite the horse-woman. During my adjuncting days, I used to work in her horse barn to pay the bills. We do a lot of horse stuff together — she does the shows etc, while I pay the bills and try not to hold my breath when she jumps, which she does a lot of."

By reading Amanda's last comment, one can attest to her sense of humor, "Oh, and my shoe size used to be 6.5 until I had my daughter and it's now 7…"

From Quinebaug Valley Community College

Denise Walsh is the new Instructor of Developmental Mathematics at Quinebaug Valley Community College in Danielson. She is a 1990 graduate of Quinebaug Valley and holds degrees from Eastern Connecticut State University and Sacred Heart University. She has been an adjunct at QV for 11 years and previously worked in the Learning Center at the college. As a native of northeastern Connecticut, she states that she is "thrilled to be working in my community" as she has always "enjoyed working with the diverse community college population."

Denise shares her motivation by telling us, "Through my years as a non-traditional student at Quinebaug Valley, I met some fantastic math instructors who were excellent role models and were very supportive of me as I continued my education."

In her spare time, Denise likes bird watching and solving math puzzles.

UNIQUE INSTITUTE FOR TEACHERS
OF MATHEMATICS AND SCIENCE

By Betsey Doane, Housatonic CC

Many of you know that I am an avid ham radio operator and have been since age 12. That's another story in itself but I thought you would be interested in one of the projects our national organization is undertaking.

The American Radio Relay League in Newington is our national headquarters. One of the projects of the ARRL is to give grants to teachers for a week-long institute which applies mathematics and science to basic electronics and wireless technology. Although the target audience is middle school, teachers of elementary grade students as well as university students have participated. The usefulness of the Institute for each is a function of the level of application and of course, what they put into it.

The idea is to give teachers the skills and activities they can use for their students. Frankly, what excites me about this Institute is the way in which its moderator, Mark Spencer, approaches the subject. He has taught radio theory to many studying for their FCC licenses—we are all licensed operators—and his approach is entirely mathematical!

There are four components to the course. The first is basic electronics which emphasizes wireless technology literacy. Among the topics covered are: how radio waves get from one place to another, Ohm's Law $E = IR$, topics in basic electronics and radio.

Set up of an activity board to demonstrate Ohm's Law

Playing around with Ohm's Law is fun because each is given some activity boards on which they can vary values of resistance; there are both a volt meter and an ammeter which can be used and they can do problems like predict current flow through a circuit. Different values of resistors are mounted on plugs on the board and there is a matrix with symbols so that it becomes obvious how to connect these resistors. The formula becomes alive with the application easily in hand.

Completed activity board

Here's an application those of you teaching precalculus would enjoy. I know that some of you do similar sorts of experiments but here is what Mark does with his teachers who hopefully will follow through with their students. This activity board demonstrates the concept of modulation and demodulation. An optascope is connected to a computer via the USB port and displays the wave form on an overhead projector connected in the usual way. Feed audio into a speaker and vary the amplitude and frequency! Students **hear** the changes and **see** the wave form change through the optascope. We could relate the results to the resulting equations $y = a \sin(bt + c)$.

A transistor amplifier activity board is also used in which participants can collect data using an ammeter, volt meter and optascope to get the characteristic curve for the transistor. Changing the amplitude gets interesting because what they see falls outside the curve of that transistor which would result in distortion! For younger people, this is easily related to the volume on their car radios!

Another application relates to exhibiting a real world example which exhibits two sine waves, their sum and their difference. The first picture below shows the two initial wave forms and the second picture shows what happens when they go through a mixer—you see their sum and their difference!
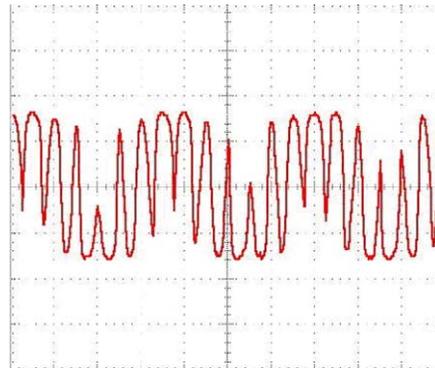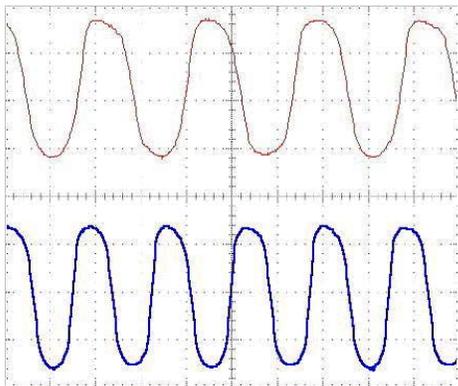
The second component of the course relates to bringing space communication into the classroom! Teachers learn how they can use the NOAA scientific satellites which transmit on frequencies in the VHF range. Software is available free off the Web which displays in real time satellite position and imagery that is transmitted by the satellites on the computer screen. These applications go across broad curriculum lines: remote sensing, weather prediction, environment science, science of radio, science of space to name a few.

For example, one can see thermal pollution coming out of harbors, see Centigrade and Fahrenheit temperatures, track hurricanes, or track speed of storms. Although this information is readily available and even calculated on the Internet, the idea here is for students to use their own real world data with these tools and use their mathematics with that data.

A third component is the programming of micro controllers which are really single chip computers. Here they learn the mathematics and logic of programming and how to interface sensors to the micro controller!

And the last component is the most fun: basic robotics! Mark has lots of success stories! One sixth grader in an ESL-concentrated school in Southern California reported that she had trouble with getting her robot to move in a straight line. So she used algebra to investigate the percentage change in the rotation of the wheels on one side! Apparently, she was so interested in the project that she learned enough algebra to do what she needed to do—pretty impressive—wouldn't you say?

Mark can be reached at mspencer@arrl.org about the Institute at http://www.arrl.org/FandES/tbp/ti.html. Read teachers reports at http://www.arrl.org/FandES/tbp/TI-feedback-04.pdf and visit the Education and Technology Page http://www.arrl.org/FandES/tbp/ where you can look at downloadable curricula and learn more about the items presented here.

And now a personal note. I wish all of you a wonderful summer. Be prepared though for the possibility of category 3 hurricanes in the Northeast—go to http://cnn.netscape.cnn.com/news/story.jsp?idq=/ff/story/0001/20060327/2227093042.htm
                                              and
http://channels.netscape.com/news/bigpic.jsp?photoid=20060327NYET121.

Remember, *When all else fails . . . Amateur radio works.*

Working at MATHCOUNTS and Loving It!
by Jana Sime, Manchester CC

Every year I volunteer for two portions of the MATHCOUNTS competitions held in Connecticut. MATHCOUNTS is a national math enrichment, coaching, and competition program that promotes middle school mathematics achievement. The founding sponsors of MATHCOUNTS are the National Society of Professional Engineers, NCTM, and CNA Foundation.

Students first compete in state chapter competitions; Connecticut has 5 chapters and this year 740 students competed. The top winners of the regional competitions proceed to the one state competition; this year there were 181 students at the state competition representing 63 schools. The top four individuals and top four teams at the state competition proceed to the national competition.

I assist with the Hartford Chapter competition held every February and with the state competition held every March. These two competitions are hosted by the University of Hartford. The competition consists of four rounds as follows – "sprint" round, "target" round, "team" round, and the "countdown" round.

The "sprint" round consists of 30 problems. The students work individually, have 40 minutes to complete the 30 problems, and are <u>not</u> allowed to use calculators, books, or any other aids during this round.

The "target" round consists of 8 problems, which are presented in pairs. The students work individually, have 6 minutes to complete each pair of problems, and are allowed to use calculators and scratch paper during this round.

The "team" round consists of 10 problems. The team members (4 students) work together to solve these problems, the team has 20 minutes to complete the 10 problems, and the team is allowed to use calculators and scratch paper.

The "countdown" round is the most popular round and is held at the end of the day after lunch and a guest speaker. The top 16 individual scorers participate. These students compete in an oral elimination event. The students are randomly paired. For the first two elimination rounds the first student of the pair to answer the most problems correctly out of three problems proceeds to the next round (if there is a tie after three problems, then whoever answers correctly first proceeds onwards). For the remaining elimination rounds, the first student of the pair to answer three questions correctly proceeds onward. The students have 45 seconds to answer the questions and are <u>not</u> allowed to use calculators. At our competitions, if neither competing student answers the question correctly, the facilitator selects someone from the audience to answer; when an audience participant answers correctly, he or she receives a frisbee with the MATHCOUNTS logo.

I have been doing MATHCOUNTS for at least four years. One highlight for me is working all 128 problems prior to the competition (judges are asked to work all problems prior to the competitions to ensure that answer keys are correct). There are three judges – me from MCC, an emeritus engineering faculty member from the University of Connecticut, and a mathematics faculty member from Saint Joseph College. The three of us successfully solve all the problems, but we often have a hard time determining a method that meets the time constraints. We receive

the problems a week before the competition; the problems involve algebra, number sequences, probability, statistics, patterns, and geometry.

Another highlight is working with the 50 plus volunteers – scorers, test monitors, computer recorders, and countdown staff. Many of the volunteers are faculty members from various institutions and practicing engineers. It is quite exciting trying to score the papers in time for the countdown round; there are 32 scorers (judges included) and two people inputting the scores into a computer. At the March 2006 competition, Professor Edward B. Burger of Williams College delivered his talk, "A Journey into the Fourth Dimension." Unfortunately we judges often miss the guest speaker because of the time required for scoring and quality checks.

Perhaps the most exciting part of the day is when we finally join up with the students after lunch for the "countdown" round. It is gratifying to see the students being excited by mathematics. All the students, the 16 competing on stage and the others in the audience, are enthusiastic and make the mathlete competition as exciting as any sports competition.

Reflections on MATHCOUNTS
by Sandra Pettinico, Naugatuck Valley CC

MATHCOUNTS is a successful national program that is making a major difference in young people's attitudes toward math in middle school and beyond. At this year's annual MATHCOUNTS Western Connecticut Chapter Competition, hosted by Naugatuck Valley Community College, students from area middle schools, called "Mathletes", came prepared to show off their knowledge of mathematics. Students compete for both individual and team recognition.

What makes the day especially fun for the competitors (other than the pizza for lunch) is the countdown round that caps off the event. The top ten individual winners compete in the countdown round, facing off against each other two at a time in best-of-three question matches. Time is set at 45 seconds for each question and it's a race to the buzzer from then on. If neither student correctly answers a countdown round question, members of the audience get to take a shot at answering it. It's great to see everyone so involved in the fun!

As always, the students who placed in the top 10 at NVCC were excited to win trophies. The auditorium filled with cheers and applause as each name was announced. Also, the individual and team winners were delighted to have the chance to go on to compete in the state competition, which could lead to participation at the national level.

In order for the competitions to run smoothly, volunteers are needed – parents, teachers and professionals from business and industry. Volunteer members of the Connecticut Society of Professional Engineers work with volunteers Tony Pruchnicki and Sandy Pettinico to organize and run the chapter competition that is held at NVCC. All of the middle school teachers who coach the MATHCOUNTS teams are also volunteers. For more information on volunteer opportunities, visit the website at http://mathcounts.org.

Campus Corner

From Capital Community College

Kathy Herron reports —

Capital CC was awarded a $35,000 MetLife Foundation grant for an Academy of Success program that reaches out to high school juniors in city schools, to transition them to college.

From Gateway Community College

Rachael Schettenhelm reports —

Gateway CC is looking forward to a campus consolidation in 2010. The proposed new location is on Church Street at the sites formerly occupied by the Macy's and Malley's department stores in downtown New Haven. The preliminary architectural plans have been approved with plenty of input from faculty and staff. The building will likely be five stories tall and occupy two blocks next to the Temple Street garage with a walkway over Temple Street to connect the two parts of the building. The faculty is looking forward to a state-of-the-art facility that presents an appealing face to the downtown area with a bookstore, child-care center, and community meeting room.

From Manchester Community College

Dr. Sonia Mihok reports —

I have been at Manchester for four years as the coordinator of the College Learning Center. I have just earned my doctoral degree (May 2005) in Educational Leadership at Johnson & Wales University. I enjoy teaching and tutoring students in developmental math. While part of my job is to teach math, I would it anyway, as I love math and sharing the fun of math with others!

Jana Sime reports —

Here at Manchester we are actively searching for two full time faculty members; one position is for developmental math and the other position is for a generalist.

This May the Math Department will be holding an internal professional development workshop for its fulltime and part-time faculty on the TI-89 calculator. Since the facilitator of this workshop will be an individual from the CT Department of Education, we will also be learning about how calculators are being used in the high schools.

From Naugatuck Valley Community College

Elaine Dinto reports —

The Math Department underwent a successful Developmental Math Discipline Review last spring; if anyone doing a similar review is looking for "consultants," contact Bonnie or Elaine. ☺

NVCC hosted *CAMPY-on-Campus*, a day of enrichment for middle school students, held on May 25, 2005. One of three sites across the state, NVCC had 13 presenters and more than 150 participants. Feedback from students and teachers and/or chaperones was extremely positive — they cannot wait to come back again!

Bonnie Simon reports —

Bob Lynott, past Matyconn President and Treasurer, is really retiring from teaching in Connecticut and moving to North Carolina.

Scott Ferriss, retiring after teaching for 20 years, is trading in his graphing calculator for relaxation and antiquing.

Deb Litwinko has spent her summers teaching math skills to nurses and business majors through internal retention grants.

Naugatuck Valley Community College received funding for a new $30,000 technology building, which will house engineering technology, hospitality, management, horticulture, viticulture, and automotive technology programs.

From the frontiers of Northwestern Community College

Greg Banks reports —

To fill the vacancy left by Kunle Olumide, an extensive search was conducted and concluded successfully with the hiring of Amanda Buckley this January. She brings an energy and vitality to the classroom and the college.

Keith Adams is still our MATYCONN contest coordinator. We have also identified several excellent students who qualify for the MATYCONN scholarship and have strongly encouraged them to apply.

Our Math enrollments have been going strong, especially in our developmental and first college level courses. We were able to offer a Spring PreCalculus section for the first time in 5 years, with an enrollment of 25. We now can return to the "good old days" of offering PreCalculus year-round. We also have been able to increase our offerings in Topics in Contemporary Math to 2 sections per semester.

In fall 2005, the Math Dept. moved into the Science/Computer Science/Allied Health/ Business Division at Northwestern, from our previous "home" in the Humanities Division.

From Norwalk Community College

Joe Karnowski reports —

Math & Science Awareness Day at NCC – NCC held a Math & Science Awareness Day on Tuesday, March 28. The theme was "Fractals." All day, in the East Campus Atrium, Jonathan McMenamin-Balano (Biology faculty) had a poster presentation on fractals and biology, Laura Racine (Chemistry faculty) had an animation of fractal art and its progression in time and space, and Peter Daupern (Mathematics faculty) had various mathematical puzzles to solve. There was also a presentation on Fractal Music by Harlan Brothers, followed by a hands-on experience where attendees composed and listened to their own fractal music. The Biology and Chemistry Clubs held a bake-sale throughout the day.

Wouldn't it be a great idea if we could sponsor a Mathematics Awareness Week statewide?

From Three Rivers Community College

June Decker reports —

One thing that I think is exciting at Three Rivers is the new pilot Kathy Gundersen and I will do in the fall. It is using the ideas from the National Center for Academic Transformation (NCAT), an independent, not-for-profit organization http://www.thencat.org). We will teach one class day (1.5 hours a week) in a classroom and make an effort to engage students in mathematical discourse, teach study skills….do projects, activities… The other class period of 1.5 hours will be spent in the computer lab with students learning their skills from My Math Lab — watching videos, reading the text, doing homework, and taking quizzes. There is more info about this course redesign at http://www.thencat.org/PCR/R2/RCC/RCC_Overview.htm. We are using the course release from the Central Office's position of Web Mentor to teach our adjuncts Vista and My Math Lab so that they will be ready when more and more of our developmental teaching heads this way. We call it a "hybrid" course – half on-line and half in class (or "ground"). For developmental students, it is important to require some online work in a computer lab with teachers and tutors available to help when questions arise. Kathy has a sabbatical for the spring which she will use to synthesize all these ideas and to make a teacher guide for the course.

Campus Corner

MATHEMATICAL ASSOCIATION OF TWO YEAR COLLEGES OF CONNECTICUT (MATYCONN)

SCHOLARSHIP PROGRAM

1. **PURPOSE**
   The annual MATYCONN Scholarship Program recognizes individuals who are successful in mathematics and enrolled in degree programs at Connecticut Community Colleges.

2. **GUIDELINES/ELIGIBILITY CRITERIA**
   A maximum of three scholarships may be awarded each year.
   Previous recipients are not eligible to apply.

   To be considered for a MATYCONN scholarship, a student must
   - Be enrolled either full time or part time in a Connecticut Community College with at least 12 credits completed.
   - Have a cumulative grade-point average of at least 3.0 and have a grade-point average of at least 3.5 in his/her mathematics classes.
   - Have successfully completed at least 3 mathematics courses, at least one of which is above Intermediate Algebra, in the Connecticut Community College System.

3. **PROCEDURE**
   The Chair of MATYCONN Scholarship Committee contacts college representatives at the beginning of the spring semester. The college representatives are responsible for forwarding the scholarship information and applications to all full-time and part-time Mathematics faculty. The faculty members announce the scholarship and distribute application forms in their classes.

   The application consists of three components:
   - The completed application form with required essay
   - The math faculty member's letter of recommendation
   - A student copy of his/her Connecticut Community College transcript.

   Deadline for submitting the complete application is February 28.
   Selection will be completed before the MATYCONN Spring meeting.

   The Chair of MATYCONN Scholarship Committee announces the winners at the MATYCONN Spring meeting.

   The scholarship checks are to be mailed to recipients two weeks thereafter.

See reverse side for 2007 Application which can also be found on the MATYCONN website.

MATHEMATICAL ASSOCIATION OF TWO YEAR COLLEGES OF CONNECTICUT (MATYCONN)

MATHEMATICS SCHOLARSHIP APPLICATION

Name: _____

Address: _____
              Street   Town   State   Zip

Student I.D. No: _____ Plan of Study _____

College_____

CRITERIA

To be considered for a MATYCONN scholarship, a student must
- Be enrolled either full time or part time in a Connecticut Community College with at least 12 credits completed.
- Have a cumulative grade-point average of at least 3.0 and have a grade-point average of at least 3.5 in his/her mathematics classes.
- Have successfully completed at least 3 mathematics courses, at least one of which is above Intermediate Algebra, in the Community College System.

APPLICATION INSTRUCTIONS

1. All application submissions must be typed.
2. Submit a one-page essay stating your interest in mathematics and eligibility to receive the scholarship.

   Please include the following:
   a) How you meet the stated criteria for this scholarship.
   b) Your career and educational goals.
   c) Why you deserve this academic scholarship.

3. Attach a letter of recommendation from a math faculty member.
4. Attach a student copy of your Connecticut Community College transcript.
5. Incomplete applications will not be considered.
6. Deadline for application is February 28.

FORWARD COMPLETED APPLICATION TO

Larisa Alikhanova, Chair of Scholarship Committee of MATYCONN
Three Rivers Community College, Thames Valley Campus
574 New London Turnpike
Norwich, CT 06360

Favorite Book
By Kathy Bavelas, Gateway CC

If you are looking for light mathematical reading this summer — a beach book, I recommend *The Joy of π* by David Blatner. It was published in 1997 and by 1999 was in paperback, but somehow I missed it. Churning out digits for pi, now over 51 billion of them, has been an occupation for many for thousands of years. Why does mankind do it? Do we ever need more than 15 or 20 digits in a scientific calculation? This was one question that inspired the author—why do we keep churning out digits of pi? "Pi lies hidden in the rhythms of both sound waves and ocean waves, ubiquitous in nature as well as in geometry." As you read this little book you will find one million digits of pi circling the pages. Tidbits, like the earliest known record of this ratio is from the Rhind Papyrus from about 1650 BC... Or did you know that the ratio of the length of one side of the great Pyramid to the height is approximately pi/2? Did you know that the Romans at the height of their empire used 3 and 1/8 for pi even though they knew 3 and 1/7 was closer — easier for their legions to work with!!!! Or that "Ten decimals are sufficient to give the circumference of the earth to a fraction of an inch and 30 decimals would give the circumference of the whole visible universe to a quantity imperceptible with the most powerful telescope." Another tidbit — if you examine the first one million digits of pi you will not find one occurrence of the sequence 123456. The sequence 012345 does however occur twice. I have decided this would be a great book to require as reading, for I do believe that by the time one of our students reads it s/he might have a better feel for an irrational number. It would be a painless way to have a student develop some number sense. In relaying the history of pi so many folks from so many places around the world made a contribution, so this little gem has history, geography, mathematics, and a respect for the many cultures who have contributed to the study of pi in particular but mathematics in general. Have fun reading this summer!

Shop 'til You Drop...
By Alice Burstein, Middlesex CC

When I was in Seattle this summer, my niece took me to Math 'n' Stuff, a store that must be THE BEST for mathematics merchandise. They have books galore (for all ages and many levels of mathematical sophistication: workbooks, non-fiction, fiction — all having something to do with math) plus mathematical games, puzzles, great t-shirts, stuff like rulers, pencils, staple-less staplers, jewelry, models, etc. Almost anything mathematical you can think of (but no fractals). I had a great time, contributed to the store's financial success, and walked away with some neat stuff.

You can visit Math 'n' Stuff online *http://www.math-n-stuff.com/,* although the web site does not come close to the excitement of the store.

No Child Left Behind: The Football Version

Author unknown, additions by Carolyn K., webmistress, Hoagies' Gifted Education Page (http://www.hoagiesgifted.org/)

1. All teams must make the state playoffs, and all will win the championship. If a team does not win the championship, they will be on probation until they are the champions, and coaches will be held accountable.

2. All kids will be expected to have the same football skills at the same time and in the same conditions. No exceptions will be made for interest in football, a desire to perform athletically, or genetic abilities or disabilities. ALL KIDS WILL PLAY FOOTBALL AT A PROFICIENT LEVEL.

3. Talented players will be asked to work out on their own without instruction. Coaches will use all their instructional time with the athletes who aren't interested in football, have limited athletic ability or whose parents don't like football.

4. All coaches will be proficient in all aspects of football, or they will be released.

5. Games will be played year round, but statistics will only be kept in the 4th, 8th and 11th games.

6. This will create a New Age of sports where every school is expected to have the same level of talent and all teams will reach the same minimal goals.

Moral of the story: If no child gets ahead, then no child will be left behind.

AVOID CHOCOLATE
It makes your clothes shrink !
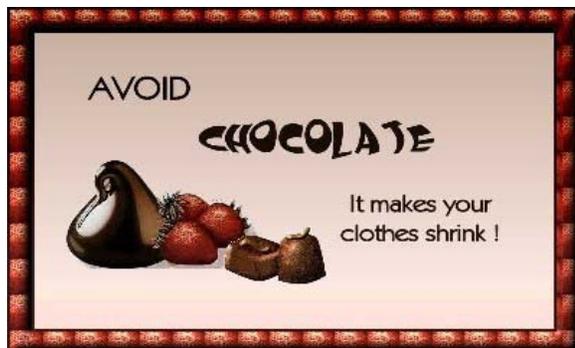
Noah's Arc: Bible Mirth

The Flood is over and Noah lets all the animals out and says, "Go forth and multiply."

A few months later, everyone is doing fine except for one pair of little snakes. "What's the problem?" says Noah. "Cut down some trees and let us live there," say the snakes.

Noah follows their advice and later asks, "Tell me how the trees helped?"

"Certainly," say the snakes. "We're adders, so we needed logs to multiply."

So You Think You Know Your Numbers?

A dime has 118 ridges around the edge.

A cat has 32 muscles in each ear.

A dragonfly has a life span of 24 hours.

A goldfish has a memory span of three seconds.

A "jiffy" is an actual unit of time for 1/100th of a second.

A snail can sleep for three years.

All 50 states are listed across the top of the Lincoln Memorial on the back of the $5 bill.

Cats have over one hundred vocal sounds. Dogs only have about 10.

In the last 4,000 years, no new animals have been domesticated.

If the population of China walked past you, in single file, the line would never end because of the rate of reproduction.

If you are an average American, in your whole life, you will spend an average of 6 months waiting at red lights.

The cruise liner, QE2, moves only six inches for each gallon of diesel that it burns.

There are 293 ways to make change for a dollar.

Note: Logo
borrowed from
www.cartalk.com

by Elaine Dinto, Naugatuck Valley

PUZZLER (02-27-06): A Farmer, a Daughter – and an Unknown Number of Apples*

RAY: As luck would have it, this puzzler was sent in by two different people, a week apart. A fellow named Ronald... and another fellow named Milton... both sent in basically the same puzzle. I kind of mixed them together.

TOM: Did you obfuscate?

RAY: Of course! Here it is: A young man wants to ask a farmer for his daughter's hand in marriage. In fact, he wants more than the hand, he wants the whole girl. And the farmer says, "If you do this right, I'll give you her, a few cows, and I'll throw in a tractor! But in order to have her hand in marriage, I want you to walk out to the apple orchard and pick some apples. On your way back to the farmhouse, you're going to pass three fence posts. At the first one, you're going to leave half the apples you have, and half an apple more. When you get to the second fencepost, you're going to do the same thing: leave half the apples that you have remaining, and half an apple more. You'll do the same thing at the third fencepost. You can't cut, bite, fold, spindle, mutilate, or do anything to any of the apples. But, you must, when you're all done, have one apple remaining for my daughter. If you can do that, you can marry her, or you can have the tractor, whichever you want."

The question is, how many apples does the young man need to pick from the orchard so that when he starts out he has x number of apples, and when he's all done leaving half the apples plus half an apple at each of the three fence posts, he has one left?

Recognize the puzzle? Know the answer? This is one of the many puzzles presented recently on Car Talk, my latest favorite radio show. The puzzle is also one that members of my Math for Elementary Education class solved this semester using several different problem-solving strategies.

Tom and Ray Magliozzi, the hosts of Car Talk, broadcast weekly on NPR. They've been featured on ABC's 20-20 and interviewed by CBS correspondent Steve Kroft on 60 Minutes. Recipients of broadcasting's prestigious Peabody Award (1992), they were graduation speakers at MIT in 1999. Here's another one of their puzzles—

PUZZLER (11-14-05): The Hall of 20,000 Ceiling Lights*

RAY: This next puzzler is from my "ceiling light" series.
Imagine, if you will, that you have a long, long corridor that stretches out as far as the eye can see. In that corridor, attached to the ceiling are lights that are operated with a pull cord. There are gazillions of them, as far as the eye can see. Let's say there are 20,000 lights in a row.

They're all off. Somebody comes along and pulls on each of the chains, turning on each one of the lights. Another person comes right behind, and pulls the chain on every second light.

TOM: Thereby turning off lights 2, 4, 6, 8 and so on.

RAY: Right. Now, a third person comes along and pulls the cord on every third light. That is, lights number 3, 6, 9, 12, 15, etcetera. Another person comes along and pulls the cord on lights number 4, 8, 12, 16 and so on. Of course, each person is turning on some lights and turning other lights off.

If there are 20,000 lights, at some point someone is going to come skipping along and pull every 20,000th chain. When that happens, some lights will be on, and some will be off. Can you predict which ones will be on?

In case you are not familiar with Tom and Ray, both brothers earned undergraduate degrees from MIT. Ray took a year to work for VISTA (Volunteers in Service to America), briefly taught science, has taught adult education automotive courses and worked for the Consumer Affairs Division of the state attorney general's office. Tom went on to earn an MBA at Northeastern and a PhD at BU; he had jobs here and abroad in teaching and consulting. Back in 1973, their first joint venture was a do-it-yourself garage in Cambridge, "Hacker's Haven," a few blocks from the MIT campus, which soon turned into the "Good News Garage" a conventional car repair service which they still operate.

Listeners call in to Car Talk with car-related questions, usually seeking advice of a diagnostic nature. Better known as "Click and Clack, the Tappet Brothers" (taking their names from the clickety-clack sound made by aging autos), in the accent of the Cambridge neighborhood where they grew up they demonstrate their automotive expertise by dispensing their car advice with a laid-back, humorous approach. Their first broadcast was in Boston in 1977 and the show was picked up by NPR in 1987; it is now broadcast weekly on nearly 600 National Public Radio stations. Click and Clack often ask callers to replicate the strange sounds of their autos, and with good natured jokes directed at both the caller and themselves, they usually arrive at the correct diagnosis and dispense helpful advice. They are knowledgeable, uninhibited, and sometimes irreverent; the show is informative, entertaining, and truly funny. The Massachusetts Institute of Technology News Office (http://web.mit.edu/newsoffice/1999/clickclack.html) described the show as a "comedy-laced blend of car advice, phone-in chat, audience-participation puzzles and general outrageousness."

So why are the Puzzlers on Car Talk? Tom and Ray are fans of Martin Gardner, the former Mathematical Games columnist for the Scientific American. They feature a new puzzler, sometimes car related, often not, each week, during the "third half" of the show. One of my Math for Elementary Ed students brought the Ceiling Lights puzzle to class last fall (I had seen another version in a textbook years ago); that was the motivation I needed to jot down some of the Car Talk puzzles. Recently, when I missed the show, I decided to take a look at the Car Talk website, http://www.cartalk.com, which offers advice on just about everything; I discovered that one area of this acclaimed site contains their *Puzzler Archives* (http://www.cartalk.com/content/puzzler/) – what a find! Whether your students are working on problem solving strategies, or you just want something fun as well as educational to break up the usual routine, Car Talk provides a great source of interesting math puzzles.

Whether or not you have any interest in car problems, I recommend listening to Tom and Ray some Saturday morning. Hopefully you will find this pair to be as hilarious and rewarding as I do, and as an added benefit, you'll have a new source of challenging and fun puzzles for your classes!

PUZZLER (03-06-06): A Thousand Dollars – And a Bunch of Envelopes* (short version):

> What's the fewest number of envelopes into which you can put any combination of one thousand, one-dollar bills, such that no matter what number of dollars I ask for, you can hand me the right combination of envelopes?

Check out the website if you think you've got it or wait until the next issue of the Matyconn Newsletter!

---

*NOTE: Permission to quote Car Talk's Puzzlers was granted by "Dewey, Cheetham and Howe." Please go to (http://www.cartalk.com/content/puzzler/) for additional puzzlers, the puzzler answers, etc. If you are interested in purchasing Car Talk's puzzler books or other products, please visit the "Shameless Commerce Division" at http://www.cartalk.com for more info. ☺

Do you *Sudoku*?

by Elaine Dinto, Naugatuck Valley

数独

sū   doku

Described as the Rubik's Cube of the 21st century, Sudoku (pronounced SUE-dough-coo) are deceptively simple-looking puzzles that have only a few simple rules, require no "math" (well, no computations), yet provide a surprisingly wide variety of logic situations. They are accessible to all, as the level of difficulty of the puzzles can be selected to suit the audience, and they are utterly addictive! Players report an increasing sense of satisfaction as a puzzle approaches completion. There are claims that Sudoku not only improves memory and mind clarity, but even prevents Alzheimers: some teachers recommend Sudoku as an exercise in logical reasoning and some scientists and researchers go as far as to recommend folks do one a day. Puzzles are available from countless published sources, thousands can be found free online, and they may be custom generated using software.

According to *Times* crossword guru Will Shortz, the Sudoku phenomenon originated in 1979 when its predecessor, "Number Place," was published in New York by *Dell Magazines*. Designed by Howard Garns, a retired architect and freelance puzzle constructor, the roots likely lie in the Latin square invention of the 18th-century Swiss genius, Leonhard Euler. A new version (different from Number Place in the typical number of clues given and that Number Place puzzles did not have givens placed in rotationally symmetric cells) was introduced in Japan by Nikoli in 1984. The puzzles – renamed sudoku, which means "single number" (short for "Suji wa dokushin ni kagiru" which means "Numbers are limited to bachelors") – soon became popular in Japan. In 1997, Wayne Gould, a 59-year old retired judge and puzzle enthusiast from New Zealand found himself "killing time" in a Japanese bookstore where, since he did not read or write Japanese, he purchased a sudoku book; he soon became hooked on the puzzles. Putting his computer programming hobby to use he spent six years writing software that randomly generates the puzzles so he would never run out of new ones, and he began publishing them on the web. Knowing that British newspapers have a long history of publishing crosswords and other puzzles, in November of 2004, he promoted the puzzle to *The Times* of London, promising free puzzles daily as long as the puzzle included his web site address; the puzzles by Pappocom, Gould's software house, have been printed by *The Times* ever since. To stay competitive, several British newspapers soon provided the puzzles, and it was not long before Gould's Sudoku enjoyed immense popularity in national newspapers. Other syndicates began providing their own sudoku as well, and U.S. book publishers, sensing a big business opportunity, promptly got into the act. In a matter of a few months, Sudoku puzzles were everywhere!

If you're new to Sudoku, you may want to check out the next two pages for rules and tips for getting started. Following the hints are a few puzzles of varying levels of difficulty – have fun!

Rules for Sudoku—

The puzzle consists of a 9X9 grid subdivided into 3X3 boxes or regions. Some grid cells have digits filled in. Complete the grid so that   (1) every row contains the digits 1-9;
(2) every column contains the digits 1-9; and
(3) every 3X3 box (region) contains the digits 1-9.

If you stay organized, there is never a need to guess with a Sudoku puzzle; all new entries can be deduced from the given numbers and your organized information.

Hint for beginners—

There's no right or wrong place to begin. You might start by looking at a row or column of boxes, looking for numbers that can go in only one cell.

For example, look at the middle row of boxes.

The left and right boxes in the row each contain a 7, but a 7 is still needed in the middle box.

The middle box cannot have a 7 in the top or bottom row, because 7 already occurs in those rows of the entire grid.

Thus by the process of elimination 7 must go in a particular place, namely the center cell of the middle box.

	1			6		3		
					9		5	
8			7				4	
9	8	3		2				7
		4	8		5			
		7		6		1		
	3		1					9
4		5	6					
	6		9	8	4	5		

Now let's look at the left column of boxes.

The top and middle boxes each contain an 8, but an 8 is still needed in the bottom box.

The bottom box cannot have an 8 in the left or middle column, because 8 already occurs in those columns of the grid.

This leaves two possible cells in the bottom box for the 8. But further inspection reveals that the 8 cannot go in the bottom row of the box, since there is already an 8 in that row of the grid. Thus only one cell remains for the 8, the top right cell of the box.

	1			6		3		
					9		5	
8			7				4	
9	8	3		2				7
		4	8	7	5			
		7		6		1		
	3		1					9
4		5	6					
	6		9	8	4	5		

More beginners' hints—

Build on answers you've already filled in as far as possible.

If you're down to one empty cell in a row or column or box, it's just a matter of checking to see what digit is missing.

If you have two cells in which a digit must go, you may want to lightly pencil it in. Pencil marks are useful reminders, but be sparing with them, as listing too many can cloud the issue.

If you have two or three empty cells in a row or column or box, check to see if you can rule out possibilities and thus fill in one or all of the cells.

	1			6		3		
					9		5	
8			7				4	
9	8	3		2				7
		4	8	7	5			
		7		6		1		
	3	8	1					9
4		5	6					
	6		9	8	4	5		

For example, the third column of the grid contains 1, 3, 4, 5, 7, 8, so the entries 2, 6, and 9 must be placed. Consider the bottom left box, and look at the bottom (row) right (column) cell. Both 6 and 9 already occur in the last row of the grid, so that cell must contain 2, leaving 6 and 9 for the missing entries of column 3 in the upper left box. But 9 cannot go in the middle right cell of that box (that row of the grid already contains a 9), so 6

must go there. And, using the process of elimination to place with certainty, the 9 has to go in the bottom right cell.

Now it's your turn. Be sure you have a good eraser, a number of sharp pencils, and some scrap paper ready. And do take your time; if you end up with the same digit in two cells of any row, column, or box, it's probably easier to begin again than to try to find your mistake. Go for it — it's time to finish the puzzle!

		1			6		3	
		6				9		5
8		9	7				4	
9	8	3		2				7
		4	8	7	5			
		7		6		1		
	3	8	1					9
4		5	6					
	6	2	9	8	4	5		

A few last tips—

1	4 5 8	4 5
	2	4 5
6	7	3

A set of two candidate numbers that must go in two cells of any row, column, or box is a special pair, sometimes referred to as *twins* or a *conjugate pair*. For example, in the box on the left, suppose you determined that the top (row) middle (column) cell must contain a 4, 5, or 8. Furthermore, suppose you also determined that both the top right cell and the middle right cell must contain either a 4 or a 5. Since the same two cells must contain the same two numbers (although we're not sure of the order yet), we do know that neither of those numbers can occur elsewhere in the box. Thus the number in the top middle cell must be 8, and by the process of elimination the number in the middle left cell must be 9.

1	8	4 5
9	2	4 5
6	7	3

1			-		8	7	9
x	6	8	-	7		5	
x	x	7	-	-	-	2	
2			-				
		2					

Sometimes called *deriving certainty from uncertainty*, here's one last example: Suppose you want to know where the 2 goes in the upper left box. It appears that it can go in three places: top (row) middle (column) cell, top right cell, or middle right cell. We're not sure yet where the 2 goes in the top middle box to help us out. However, we can determine that it must go in either the top left or top right cell. Thus we know that in the middle box the 2 must go in the top row, so we can rule out the top row of the upper left box for the 2 and conclude it must go in the middle (row) right (column) cell.

Now you're on your own! Try the puzzles on the next page, look in your newspaper, go online, or purchase one of the many books available. As you go along, you will discover other techniques. Get those brain cells working! And when you're up to it, here's a moderately difficult Sudoku for the road. Enjoy!

数独

6							7	
	3			7		9		
	9		8	4		2		
5			1		2			9
4								6
7			3		4			8
		1		3	7		5	
		6		9			3	
	7							4

(1) Easy

	6		3	2		1	7	
	1				7	9		4
8					1	2		
		9		4			1	3
4			8		9			5
7	8			5		6		
		3	4					7
2		8	9				6	
	5	7		3	8		9	

(2) Easy

6							3	5
	1		7	9		8		
		9		3	5	1		6
		5			3	7	6	1
7		4		5		2		3
8	3	1	6			5		
3		2	1	7		6		
		6		8	9		1	
1	9							7

(3) Easy to moderate

		9	8	2	1			3
		3				5		
		6		7				
	1			6		9	2	
	6		9		4		1	
9	5		2				7	
			3		4			
	8				5			
7			5	4	2	9		

(4) Moderate

			4	7	8			
	3	2						9
4			9			5	6	
6						1	8	
			2	3	4			
	5	9						7
	8	7			2			4
1						3	2	
			5	9	6			

(5) Moderate

	7					8		
			2		4			
		6					3	
			5					6
9		8			2		4	
	5			3		9		
		2		8			6	
	6		9			7		1
4					3			

(6) Moderate to difficult

4			6			3		
		8		4	5			
	6					4		9
	9	2						
6			2	1	7			4
						8	1	
8		5					4	
			7	8		2		
		4			9			8

Note: Answers can be found on same page as system-wide Math Contest Winners

MATHEMATICS ASSOCIATION OF TWO YEAR COLLEGES IN CONNECTICUT

(MATYCONN)
http://www.nv3.commnet.edu/matyconn

MEMBERSHIP APPLICATION

_____
First Name   **Middle Initial**   **Last Name**

_____(_____)_____(_____)_____
College   **College Phone**   **College Fax**

_____
College Street Address   **E-Mail**

_____
      City   **State**   **Zip Code**

_____(_____)_____
Residence Street Address   **Phone**

_____
      City   **State**   **Zip Code**

_____ Check here if you do NOT want to be listed in the MATYCONN Membership Directory.
_____ Check here if you do NOT want your college information to be listed on the MATYCONN website.

* Membership Fees:

_____ **$10 Yearly membership for full-time department members**

_____ **$18 Two-year membership**

_____ **$5 Yearly membership for adjuncts and students**

_____ **$9 Two-year membership for adjuncts and students**

_____ **Contribution to the MATYCONN Scholarship Fund**

_____ **$75 AMATYC yearly membership: includes one subscription to The AMATYC Review and the AMATYC News**

_____ **I am currently a member of AMATYC.**

_____ **Total Enclosed**

* Effective May 18, 1995, by a vote of the MATYCONN Executive Board, if you overpay your MATYCONN dues the extra money will automatically go into the MATYCONN Scholarship Fund.

Please mail this completed form and a check payable to MATYCONN to
Deborah Litwinko, Math Department, Naugatuck Valley Community College,
750 Chase Parkway, Waterbury, CT 06708

INDIVIDUAL MEMBERSHIP APPLICATION

MEMBERSHIP APPLICATION: The American Mathematical Association of Two-Year Colleges
Mail to: AMATYC Office, Southwest Tennessee Community College, 5983 Macon Cove, Memphis, TN 38134

First Name   Middle Initial   Last Name   Position

College

College Address   Phone

City   State   Zip

Residence Address   Phone

City   State   Zip

Email

Indicate preferred mailing address: ❒College   ❒Residence
   ❒   Check here if you wish your name to be excluded from the AMATYC Directory.
   ❒   Check here if you wish your name to be excluded from any non-AMATYC mailing lists.

Regular Membership Categories: These memberships include *The AMATYC Review* and the *AMATYC News*.
   ❒   Individual Membership
       ❒$75 for 1 year   ❒$145 for 2 years   ❒$210 for 3 years   ❒$1500 for Life Membership
   ❒ $10 Yearly Associate Membership (full-time student, non-voting member)
       Name of AMATYC sponsor

Special Membership Categories: (Full-time mathematics faculty excluded) Special Membership categories DO NOT include *The AMATYC Review*, membership drive information, voting rights, or eligibility for AMATYC office.
   ❒ $37.50 Yearly Retired Membership   ❒ $37.50 Yearly Adjunct Faculty

The following journals are available (<u>domestic</u> addresses only) **for an additional charge:**
(Subscription(s) may be for up to the same number of years as your AMATYC membership.)
   ❒   *Mathematics and Computer Education* (3 issues per year)
       ❒ $28 for 1 year   ❒ $52 for 2 years   ❒ $80 for 3 years
   ❒   *The College Mathematics Journal* (5 issues per year)
       ❒ $55 for 1 year   ❒ $110 for 2 years   ❒ $165 for 3 years
   ❒   *PRIMUS* [Problems, Resources, and Issues in Mathematics Undergraduate Studies] (4 issues per year)
       ❒ $32 for 1 year   ❒ $64 for 2 years   ❒ $96 for 3 years

Voluntary Donations:
   ❒   AMATYC Foundation $
   ❒   AMATYC *Crossroads* Revision Project   ❒ $10 (suggested)   ❒ Other $

Total Amount Enclosed $_____ **All payments in U.S. funds payable to AMATYC**

Check #_____   ❒Visa   ❒Mastercard   ❒Discover

Credit Card #_____Signature_____

Exp. Date_____

How did you learn about AMATYC?
❒ Colleague   ❒ Supervisor   ❒ Conference Announcement   ❒ Affiliate Meeting   ❒ Summer Institute
❒ *Crossroads*   ❒ The *AMATYC News*   ❒ *The AMATYC Review*   ❒ Other, please specify_____

Optional Demographic Information:

| Ethnicity/Race (multiple selections may be appropriate)	Gender	Institution (select only one)
❒ Hispanic or Latino ethnicity	❒ Female	❒ Two-Year College
❒ American Indian or Alaskan Native	❒ Male	❒ Four-Year College
❒ Asian		❒ Other, please specify
❒ Black or African American		
❒ Native Hawaiian or Other Pacific Islander		
❒ White		
❒ Other		**rev 7.05**

MATYCONN

PROPOSED SLATE OF OFFICERS
for the 2006-2007 Academic Year

Since the usual spring meeting will be held out of state, voting will take place by email. Please watch for details, which will follow soon.

President: Joe Karnowski (Norwalk)

                                 Write-in _____

Vice President: Mark Leach (Housatonic)

                                 Write-in _____

Secretary: Betsey Doane (Housatonic)

                                 Write-in _____

Treasurer: Deborah Litwinko (Naugatuck Valley)

                                 Write-in _____

Membership Chair: Jana Sime (Manchester)

                                 Write-in _____

Math Contest   Steve Krevisky (Middlesex)
Coordinators: and
                               Sandra Pettinico (Naugatuck Valley)

                                 Write-in _____

Minority Scholarship   Larisa Alikhanova (Three Rivers)
Coordinator:
                                 Write-in _____

Newsletter Editors: Amanda Buckley (Northwestern)
                               and
                               Andre Freeman (Capital)

                                 Write-in _____

Webmaster: Elaine Dinto (Naugatuck Valley)

                                 Write-in _____

Our "Swan Song"...
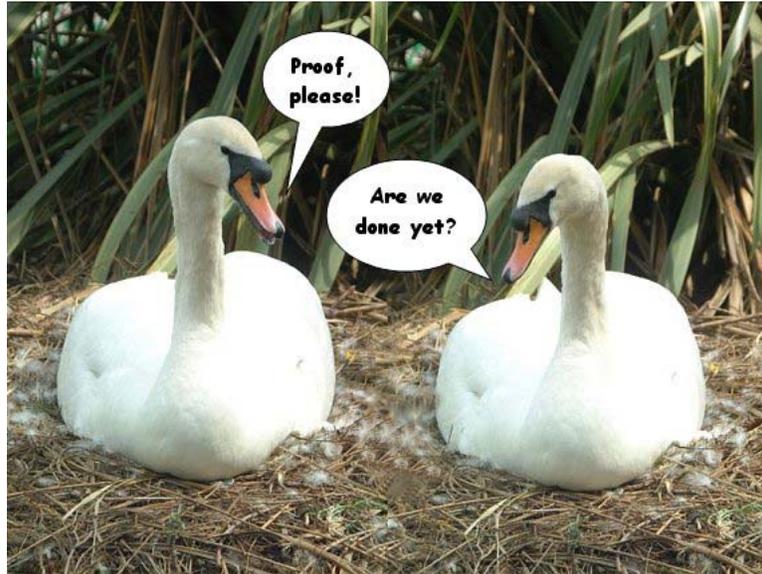
This has been a most rewarding experience. "Thank you" to all the MATYCONN members who have supported us with articles, photos, and activities (even more so to those who are still speaking to us after all the begging!). It has been our pleasure to serve as the MATYCONN Newsletter Editors — we've had lots of fun. We are extremely proud and pleased to pass down our pens, scissors, glue and stickies to the next cast of characters.

Bruce & Elaine