MC² Newsletter

This is the first monthly newsletter from MC². We want to continue to send one out every month. Please give us input on ways to improve OR articles to add.

Pat Carden-Harty

Math Advisory Board meets for the first time.

"The main purposes of the MC² Advisory Board are to help craft a vision and implement a plan for stronger district/MC² partnerships; to provide guidance concerning the type of professional development that would be most helpful to districts; and help us to develop ways to strengthen the work of MC²."

- Advisory board met January 22-23 in Albuquerque: superintendents and other district leaders who met to help guide MC² work.

- A nice aspect of the meeting was that superintendents/administrators were able to give each other advice based on their own experiences and successes.

- MC² suggested that the Advisory Board meet twice a year. The Board would prefer four times a year.

INSIDE THIS ISSUE

2009 Summer Academy Information

Dates for Summer Academy Set:

- June 1st - June 5th (Las Cruces) – NMSU
- June 8th - June 12th (Hobbs) – Highland Jr. High
- June 15th - June 19th (Las Cruces) – NMSU
- June 22nd - June 26th (Las Vegas) – NM Highlands

This year's academy theme is:
A Journey Through the Standards.

Each day will focus on different strategies that will enrich the mathematics classroom and dig into standards that drive the curriculum.


These week long academies are being designed with what math teachers have suggested to MC² that they want to learn about. The entire MC² group has already started working on the structure of these academies and will continue to organize them to make them the best learning experience for everyone involved.

Contact your MC² field specialist for details. Online registrations will be available soon!

Ted's Monthly Math Problem *

1)

How many different ways can you find x?
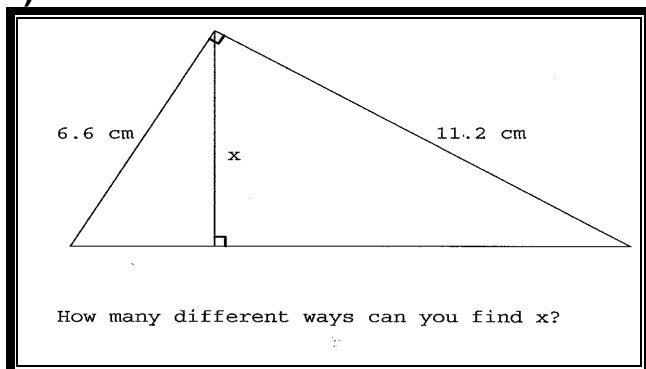
*Submitted by Dr. Ted Stanford, NMSU Mathematician.

2) I'm thinking of a secret number. If you divide 100 by my number, the remainder is 4. If you divide my number by 11, the remainder is 5. What is my number?

Answers will be in the next MC^2 newsletter. Submit your problem answers to Ted (stanford@nmsu.edu) for discussions in future newsletters.

Check out these websites:

Teacher Resources:

MC^2 (*http://mc2.nmsu.edu/community/teachers.htm*)

Artful Thinking
(*http://www.pz.harvard.edu/Research/ArtThink.htm*)

Assessing the Impact of Standards-based Middle School Mathematics curriculum on student Achievement & the Classroom Learning Environment
(http://mathcurriculumcenter.org/PDFS/MS2_report

Parent Resources:
MC^2 (http://mc2.nmsu.edu/community/parents.htm)

NM Public Education Department
(http://sde.state.nm.us/Parents/index.html

Administrator Resources:

MC^2
(http://mc2.nmsu.edu/community/administrators.htm)

Getting to Know the MC^2 Staff

Dr. Karin Wiburg

As the Associate Dean for Research of the College of Education at NMSU, Dr. Karin Wiburg is in charge of assisting departments, faculty and staff in building a research agenda and developing proposals for funding. She also assists the college and university with the development of outreach projects and continues to work as a researcher herself in the areas of math and STEM education and evaluation. Dr. Wiburg also mentors new faculty and supports all faculty in writing for publications. Presently, she serves as the Principal Investigator for MC^2 and as a lead researcher for Scaling Up Mathematics Achievement (SUMA).

Each month we will introduce a member from our MC^2 Team:

Department of Mathematical Sciences:
Mary Ballyk, Larry Hughes, Doug Kurtz, Pat Morandi, Bruce Olberding, Ted Stanford, Tony Wang, Linda Zimmerman

Field Specialists:
Patti Ann Ancell, Wand Bulger-Tamez, Janice Bradley, Patricia Carden-Harty, Edwina Henslee, Kalle Jorgensen, Kathe Kanim, Cathy Kinzer, Lisa Matthews, Bill Schrandt, Michelle Sterling-Rodriguez, Tom Taney, Regina Watson

MC^2 Staff: Linda Bishop & Hannah King

Partners: Emmanuel Espinoza, Tom Gruszka, Debbie Michels, Melinda Montez, Diane Waller

Research & Evaluation:
Karin Wiburg, Ken Korn, Khalid Farhood

Web Development:
Sheila Hills, Cuauhtemoc Luna

What Research Has To Say

It is a fact that using a Standards-Based Learning Environment will increase *Student Knowledge*. When research based curriculum resources, like CMP, are implemented in a high scoring standards-based learning environment (SBLE), students achieve. Indicators of an SBLE include:

1. Students make conjectures about mathematical ideas.
2. The enacted lesson fosters the development of conceptual understanding.
3. Student explain their responses or solution strategies.
4. Multiple perspectives are encouraged or values.

Students' statements about mathematics are valued and used to build discussion or work toward shared understanding for the class.

However, when the same research based resources (like CMP) are implemented in a low scoring standards based learning environment, students scores either stagnate or drop. Developing a standards based learning environment contributes significantly to students' mathematics achievement.

Q&A's

Question: How do I register for the Summer Academy?

Answer: Contact your MC^2 field specialist for details or visit the MC^2 website for the online registration. It will be available soon!

Submit your questions to:
[Pat Carden-Harty](#)
(pcarden@nmsu.edu)

CAN YOU DO DIVISION? DIVIDE A LOAF BY A KNIFE - WHAT'S THE ANSWER TO THAT? ~LEWIS CARROLL, THROUGH THE LOOKING GLASS

PLC Corner

Take the Process Standards and discuss how they are already being used in your school's math classes. Send us rich examples of them and we will post them in the next newsletter.

Here are the New Mexico Process Standards that are being used in math classrooms around New Mexico.
We will dig into these in future newsletters and in the Summer Academy.

New Mexico Process Standards for K-12 Mathematics

Problem Solving Instructional programs from kindergarten through grade 12 should enable all students to—	➢ Build new mathematical knowledge through problem solving ➢ Solve problems that arise in mathematics and in other contexts ➢ Apply and adapt a variety of appropriate strategies to solve problems ➢ Monitor and reflect on the process of mathematical problem solving
Reasoning and Proof Instructional programs from kindergarten through grade 12 should enable all students to—	➢ Recognize reasoning and proof as fundamental aspects of mathematics ➢ Make and investigate mathematical conjectures ➢ Develop and evaluate mathematical arguments and proofs ➢ Select and use various types of reasoning and methods of proof
Communication Instructional programs from kindergarten through grade 12 should enable all students to—	➢ Organize and consolidate their mathematical thinking through communication ➢ Communicate their mathematical thinking coherently and clearly to peers, teachers, and others ➢ Analyze and evaluate the mathematical thinking and strategies of others; ➢ Use the language of mathematics to express mathematical ideas precisely.
Connections Instructional programs from kindergarten through grade 12 should enable all students to—	➢ Recognize and use connections among mathematical ideas ➢ Understand how mathematical ideas interconnect and build on one another to produce a coherent whole ➢ Recognize and apply mathematics in contexts outside of mathematics
Representation Instructional programs from kindergarten through grade 12 should enable all students to—	➢ Create and use representations to organize, record, and communicate mathematical ideas ➢ Select, apply, and translate among mathematical representations to solve problems ➢ Use representations to model and interpret physical, social, and mathematical phenomena

Adapted from National Council of Teachers of Mathematics Standards

*Visit MC^2 [website](#) to download the PDF version.