NEXT07-LIST@enterprise.maa.org
Tue, May 12, 2009 at 3:26 PM

Dear Fellows and Consultants:

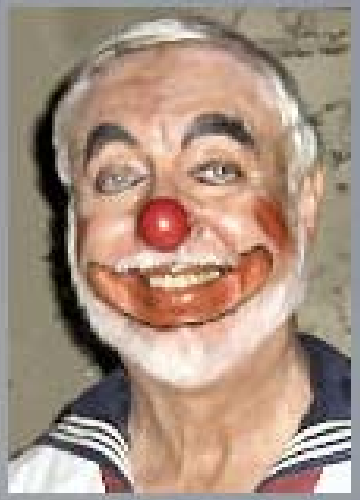
I'm working with a group of colleagues who are interested in revamping our Calculus sequence to incorporate project based learning. Our basic idea is to incorporate more active learning strategies – one minute papers, memory drills, clicker surveys, etc. – into our classes and to also introduce several large projects that might encourage students to think outside the narrow confines of "today's lesson". There are plenty of good projects and strategies out there. I encourage you to respond if you know of some that you are really excited about.

However, my main question is: Do you know of good information about the effectiveness or assessment of these teaching techniques? We'd like to be able to cite philosophical/pedagogical arguments or educational assessments to support our curriculum development efforts when questioned by our more traditional colleagues.

Thanks!

Will Traves, Will.Traves.ca@usna.edu

U.S. Naval Academy



David A. Smith

Making the Connection: Research and Teaching in Undergraduate Mathematics Education

Marilyn Carlson & Chris Rasmussen

MAA Notes #73, 2008

WWW.MAA.ORG

MAA Online
The Mathematical Association of America

Search MAA: GO
Search MAA Bookstore

Membership | Publications | Professional Development | Meetings | Organization | Competitions | Support the MAA

News and Highlights

Earlybird Deadline for MathFest Registration is May 15

MAA website undergoing a scheduled maintenance on May 15, 16 & 17

At the Carriage House:

Two Poets Unveil the Poetic Beauty of Mathematics

Math in the News:

National Survey Shows Improvements in School Mathematics Scores

Math in the News Archives

Edward Belbruno on Low-Energy Pathways in Space, Chaos, and Random Walks (with audio)

New MAA Book:

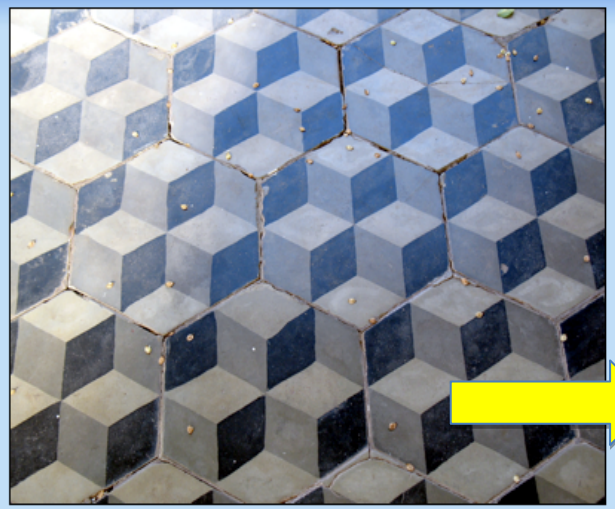
Who Gave You the Epsilon?

A Memorial "Celebration of the Life of Leonard Gillman"

MAA National Elections 2009:

It's Time to Vote

Candidate Biographies



FOUND MATH: This Escher pattern was found on the floor of the Victoria Manor in Queenstown, South Africa. Photo by James Metz, University of Hawaii. FOUND MATH GALLERY

Calling All Photographers: We're looking for math-related images for our "Found Math" feature. Send them, along with a brief description, to editor@maa.org.

Community

Sections | Students | SIGMAAs

CML – Combined Membership List
Join the MAA
Renew Your Membership Now
Bookstore / Merchandise
Looking for a Job? Math Classifieds
Advertise with the MAA
In Memoriam
MAA Reviews
Contact Us

Columns

MAA NumberADay: 30

MAA MinuteMath

Devlin's Angle by Keith Devlin
Do You Believe in Fairies, Unicorns, or the BMI?

Launchings by David Bressoud
Restore the Integral to the Fundamental Theorem of Calculus

Chaos, and Random Walks (with audio)

New MAA Book:

Who Gave You the Epsilon?

A Memorial "Celebration of the Life of Leonard Gillman"

MAA National Elections 2009:

It's Time to Vote

Candidate Biographies

More Headlines

FOUND MATH: This Escher pattern was found on the floor of the Victoria Manor in Queenstown, South Africa. Photo by James Metz, University of Hawaii. FOUND MATH GALLERY

Calling All Photographers: We're looking for math-related images for our "Found Math" feature. Send them, along with a brief description, to editor@maa.org.

MAA Bookstore

2009 PREP Workshops

MAA Carriage House

Register now for MathFest 2009: Portland, Oregon

Order MAA Posters: "Women of Mathematics" and "Ethnomathematics"

Looking For a Job? Math Classifieds

MAA Mathematical Sciences Digital Library

MathDL Home Page

MAA Writing Awards:

1990 Lester R. Ford Award

"Kathy O'Hara's Constructive Proof of the Unimodality of the Gaussian Polynomials" by Doron Zeilberger

The American Mathematical Monthly, vol. 96, 1989, pp. 590-602.

LOCI **and** ***Mathematics Magazine***

Featured Article:

MAA NumberADay: 30

MAA MinuteMath

Devlin's Angle by Keith Devlin
Do You Believe in Fairies, Unicorns, or the BMI?

Launchings by David Bressoud
Restore the Integral to the Fundamental Theorem of Calculus

MAA Reviews
Bringing Science and Mathematics to Life for All Learners

How Euler Did It by Ed Sandifer
Nearly a Cosine Series

Card Colm by Colm Mulcahy
The Yummie Deal and Variations

Resources for Undergraduate Research by Sarah Adams and Darren Narayan
Starting and Maintaining an Academic Year Undergraduate Research Program

The Mathematical Tourist by Ivars Peterson
The Ladies' Diary

The Math Factor Podcast by Chaim Goodman-Strauss
Bamboopalooza One

Bit-Player by Brian Hayes
Bracketology: The Madness of March

Main Columns Page

Journals

David Bressoud's
Launchings

Restore the Integral to the Fundamental Theorem of Calculus
May 2009

WeBWorK
April 2009

Should Students Be Allowed to Vote?
March 2009

Mind the Gap
February 2009

Launching into the Next Two Years
January 2009

Abstract versus Concrete Examples in Teaching Math
December 2008

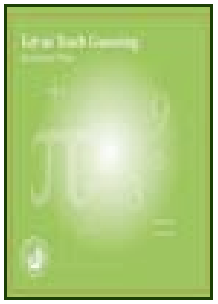
Lessons for Effective Teaching
November 2008

Strategic Planning around STEM Issues
October 2008

College Calculus: What We Don't Know
September 2008

Student Thinking
August 2008

LET US TEACH GUESSING DVD - In Stock



George Pólya

In a remarkable tour de force, Pólya shows us how to teach guessing.
undergraduate class to discover the number of parts into which 3-spac

Catalog Code: LETG
1966, color, 61 minutes

List Price: $29.95
Member Price: $24.95

Guershon Harel: Intellectual Need

Proof by induction: need to *begin* by challenging students to find the inductive statement that is only implicit.

NEXT07-LIST@enterprise.maa.org
Tue, May 12, 2009 at 3:26 PM

Dear Fellows and Consultants:

I'm working with a group of colleagues who are interested in revamping our Calculus sequence to incorporate project based learning. Our basic idea is to incorporate more active learning strategies – one minute papers, memory drills, clicker surveys, etc. – into our classes and to also introduce several large projects that might encourage students to think outside the narrow confines of "today's lesson". There are plenty of good projects and strategies out there. I encourage you to respond if you know of some that you are really excited about.

However, my main question is: Do you know of good information about the effectiveness or assessment of these teaching techniques? We'd like to be able to cite philosophical/pedagogical arguments or educational assessments to support our curriculum development efforts when questioned by our more traditional colleagues.

Thanks!

Will Traves, Will.Traves.ca@usna.edu

U.S. Naval Academy