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## PRISM Team: "Welcome Back!"

PRISM would like to welcome all our users back for the 2014-2015 school year. For those of you with existing courses on PRISM, here are some helpful tips to get started for the new year:

- **You can re-use your existing courses.** The first step to cleaning them is to perform a Moodle Reset. Look for the 'Reset' link in your course administration block. On that page, you will see several options that allow you to clear the grade book, groups, chat history, quiz data, assignment data, and more. Be sure to click the 'Expand all' link to see all of the options. **Note: Do not Unenroll your users using the Reset feature. The student administration block in your course will be used to perform this function.**
- **Clear your student roster using the student administration block.** You can delete all students by clicking the 'Advanced' button in the student administration block. Now click the 'Delete' button. You will see a list of your students. You can either check the ones you want removed or remove all of them by clicking 'Select All'. Don't worry if you accidentally delete a student. You can recover the deleted student(s) by clicking the 'Recover' button in the student administration block. **Note: Be sure to perform the 'Reset' options in your course before deleting students.**
- **Update the course start date for your course(s).** Look for the 'Edit settings' link in your course administration block. On that page, find the setting for 'Course start date' and update it for the new school year. Updating this date will properly date your course's weekly sections.
- **Import your new student rosters.** You can import your student rosters using the CSV Import feature in the student administration block. Please see our [tutorial](#) for help with using this feature. **Note: Email addresses for student accounts on PRISM are OPTIONAL. Please do not add fake email addresses for student accounts.**
- **Contact the PRISM Team to remove old courses.** Courses on PRISM are removed after a year of inactivity. If you have several courses that you no longer need, contact us and we will remove them.
- **Visit our tutorial section.** We offer many tutorials that cover how to use all of the Moodle resources and activities. We also have tutorials for importing quiz questions from ExamView and embedding YouTube videos in your course.
- **Update your web browsers.** For the best experience, the PRISM Team recommends Chrome, Firefox 31, or Internet Explorer 11. Internet Explorer 8 is no longer supported. We encourage updating to a modern browser.

# (Don't be) Bad at Math

by Jeffrey Bennett

eCampus News July 2014

**Even in the unlikely case that you actually are bad at math, please don't say it.**

Let's start with a multiple-choice question: Imagine that you're at a party, and you've just struck up a conversation with a dynamic, successful businesswoman. Which of the following are you most likely to hear her say during the course of your conversation?

- A. "I really don't know how to read very well."
- B. "I can't write a grammatically correct sentence."
- C. "I'm awful at dealing with people."
- D. "I've never been able to think logically."
- E. "I'm bad at math."

We all know that the answer is E, because we've heard it so many times. Not just from businesswomen and businessmen, but from actors and athletes, construction workers and sales clerks, and sometimes even teachers and CEOs.

Somehow, we have come to live in a society in which many otherwise successful people not only have a problem with mathematics but are unafraid to admit it. In fact, it's sometimes stated almost as a point of pride, with little hint of embarrassment.

It doesn't take a lot of thought to realize that this creates major problems. Mathematics underlies nearly everything in modern society, from the daily financial decisions that all of us must make to the way in which we understand and approach global issues of the economy, politics, and science.

To take a simple example, consider the recent recession and financial crisis, which is still affecting the global economy today. The clear trigger for the recession was the popping of the real estate bubble, which ignited a mortgage crisis. But what created the bubble that popped?

Take a look at the figure below, which shows one way of looking at the housing bubble. The graph shows the ratio of the "median home price to medium household income." Notice that this ratio remained close to 3 for decades, meaning that on average, a family with income of \$50,000 per year would purchase a home costing about 3 times \$50,000, or \$150,000.

Then, from about 2001 to 2007, the ratio shot up to almost 5, meaning that the same average family was suddenly spending close to \$250,000 on a house. How was it possible that the same income suddenly have allowed a family to purchase a much more expensive home? I won't go through the full analysis here, but the basic answer is: it wasn't, and anyone who thought it was simply ignoring basic math.

In other words, the bubble occurred because people purchased homes they couldn't really afford, and this fact would have been obvious if Americans, as a nation, had simply paid more attention to the math.

Read more online at: <http://www.ecampusnews.com/top-news/math-financial-bubble-324/>



# Ten Strategies for Effective Communication in Afterschool

*Contributed by Jaime Garcia and Matthew Rushing*

Working in an afterschool program involves taking on many roles and interacting with a variety of people, including staff, parents, and children. Effective communication techniques can help maintain a clear vision of the program's goals, clarify expectations of staff and students, and assure parents that their children are in good hands.

1. Know Your Audience. We are educators, caregivers, and mentors, among other roles. Make sure we're saving the educational jargon for the office and using our classroom voices when working with young children. Be a leader in each setting in which you work by adapting and choosing your language carefully.



2. Prepare. Before addressing parents, principals, or employees, take a moment to map out your conversation. Keep your main points in mind, so you can control the direction of the conversation.

3. Establish Credibility. You are the expert when it comes to your program and the needs of your children. When confronted with a difficult conversation, start with assets, not deficits. Instead of saying, "I've never seen this situation before ..." try, "Because I've worked with children for four years, I can offer some insight ..." This will give others confidence in your decision-making ability.

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4. LAFF. When confronted by a disgruntled customer, remember LAFF - Listen, Apologize, Fix, Follow Up (Through the Customer's Eyes by National Seminars Group). By listening and apologizing, we can validate concerns and ease tension. Offer solutions, and follow up to ensure your solutions resolved the situation.

5. Make First Contact. If you know someone will be calling to express a concern, call them first. Being caught off guard by an upset parent puts us at a disadvantage. Prepare your thoughts and call your customer first, to maintain control of the situation and be proactive in your response.

Read more online at: <http://naaweb.org/tip-of-the-week/item/146-ten-strategies-for-effective-communication-in-afterschool>

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## Calculus Course Assistant

### Wolfram Group Education



Taking calculus? Then you need the Wolfram Calculus Course Assistant. This definitive app for calculus--from the world leader in math software--will help you work through your homework problems, ace your tests, and learn calculus concepts. Forget canned examples! The Wolfram Calculus Course Assistant solves your specific Calculus problems on the fly including step-by-step guidance for derivatives, integrals, and much more.

This app covers the following topics applicable to Calculus, AP Calculus AB, AP Calculus BC, Calculus I, and Calculus II:

- Evaluate any numeric expression or substitute a value for a variable.
- Plot basic, parametric, or polar plots of the function(s) of your choice.
- Determine the limit of a function as it approaches a specific value.
- Differentiate any function or implicit function.
- Find the critical points and inflection points of a function.
- Identify the local and absolute extrema of a function.
- Integrate a function, with or without limits.
- Sum a function given a lower and upper bound.
- Find the closed form of a sequence or generate terms for a specific sequence.

The Wolfram Calculus Course Assistant is powered by the Wolfram|Alpha computational knowledge engine and is created by Wolfram Research, makers of Mathematica—the world’s leading software system for mathematical research and education.

The Wolfram Calculus Course Assistant draws on the computational power of Wolfram|Alpha’s supercomputers over a 2G, 3G, 4G, or Wi-Fi connection.

The app is available for Android, Apple, and Samsung devices.

<http://products.wolframalpha.com/courseassistants/calculus.html>

## Exoplanet



<http://exoplanetapp.com>

The Exoplanet app is a highly visual and interactive catalogue of all known exoplanets. Exoplanets are planets orbiting stars beyond our own Solar System. It is frequently updated whenever new discoveries are confirmed. An amazing model of the Milky Way lets you explore our universe all the way from the Solar System to the cosmic microwave background. This app has been developed and is maintained by a professional astronomer.



<http://apps.theodoregray.com/home/the-elements-in-action/>

## The Elements in Action

The periodic table comes to life with 79 video explorations of the weird, wonderful, and sometimes alarming properties of the elements. Filmed by BAFTA award winner Max Whitby in partnership with Theodore Gray, author of the iconic book and app *The Elements*, and previously available only in a few museum installations, this is the most beautifully filmed collection videos ever assembled to explore and explain what makes each element unique and fascinating.

What happens when highly reactive rubidium is dropped into water? Or when a cannonball is placed in a pool of mercury? *The Elements in Action* shows you one definitive demonstration for (almost) every element, ranging from the bizarre to the sublime, all assembled in one place for you to view in the comfort and safety of your iPad, with very little danger of death by fire, dismemberment, or poisoning.

*The Elements in Action* works as a stand-alone app, but really shines when combined with the original app, *The Elements: A Visual Exploration*. Installed together, the two apps find each other and link together, allowing you to flip seamlessly between viewing the elements as objects of contemplation in the original, and objects of dynamic action in the second.

Now fully translated into: English, Catalan, Croatian, Dutch, Finnish, French, German, Italian, Japanese, Korean, Polish, Portuguese, Russian, Simplified Chinese, Spanish, Swedish, Turkish.



## Fall 2014 Courses & Workshops

Select courses and workshops by:

Institution: [Bethel College](#), [Goshen College](#), [Calumet College of St. Joseph](#), [Saint Joseph's College](#), [Oakland City University](#), [Indiana Tech](#)

Audience: [Elementary](#), [Middle](#), [Secondary](#)

Type: [Undergraduate](#), [Graduate](#), [Workshop](#)

Format: [Hybrid](#), [Online](#), [Face-to-face](#)

Subject: [Physics](#), [Science](#), [Math](#), [Biology](#), [Engineering](#), [Technology](#)

- Lessons Using Science Standards: <http://www.stemteachindiana.org/product/lessons-using-science/>
- Biodiversity and Evolution Biology 111: <http://www.stemteachindiana.org/product/diversity-ecology-and-behavior/>
- Anatomy and Physiology I Biology 203: <http://www.stemteachindiana.org/product/anatomy-physiology/>
- Forensic Entomology FS 518A/Biology 318: <http://www.stemteachindiana.org/product/forensic-entomology/>
- STEM meets Project Based Learning: <http://www.stemteachindiana.org/product/stem-meets-project-based-learning/>
- Finite Math Math 110: <http://www.stemteachindiana.org/product/finite-math/>
- Algebra & Trigonometry Math 104: <http://www.stemteachindiana.org/product/algebra-trigonometry/>
- Teaching Physical World - EDUC 503: <http://www.stemteachindiana.org/product/teaching-physical-world/>
- Advanced Calculus - Math 510: <http://www.stemteachindiana.org/product/advanced-calculus/>
- Statistical Analysis - Math 550: <http://www.stemteachindiana.org/product/statistical-analysis/>

## What PRISM Can Do For You!

- Easily find the perfect teaching and learning resources from our library of over 4,000.
- Save a list of your favorite resources for quick retrieval.
- Create and share lesson plans that teach your subjects utilizing your favorite resources.
- Develop online classrooms with interactive assignments, lessons, quizzes and more!
- Store your classroom materials online so that they are available to you from any computer.
- Reach your students more effectively by using web media for the digital age.
- Earn PGP points by completing PRISM led online Moodle course – either Beginning Moodle or Intermediate Moodle courses are available to you at no cost several times throughout the year.
- Select from free learning resources that emphasize visualization, rich context, staged-problem solving, and electronically enabled collaboration / communication.
- Augment your own dynamic presence in the classroom with teaching tools that mirror the skills needed for success in higher education and the 21st Century workplace.

*Through our strong support from the [Lilly Endowment](#) and others, we are constantly growing and improving. Check our site regularly to see what new resources you can use in your classroom.*

[www.rose-prism.org](http://www.rose-prism.org)



PRISM is a free website that provides collections of online resources for Indiana educators in the fields of science, technology, engineering, and mathematics (STEM). The primary collection of digital teaching materials is indexed according to the Indiana Academic Standards for 6th, 7th, and 8th grade and secondary education courses.