



# iPads in the Math Classroom

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# Apple iOS Devices and iTunes for Education

[http://www.apple.com/  
education/docs/  
Getting\\_Started\\_with\\_Apple\\_iO  
S\\_Devices\\_20110912.pdf](http://www.apple.com/education/docs/Getting_Started_with_Apple_iOS_Devices_20110912.pdf)

About iOS Devices and iTunes for Education





# Supporting Technology

- ✦ Wireless Infrastructure (LAN vs. WAN)
- ✦ Apple TV, AirPlay, AirPort
- ✦ Dongles, iPevo, Stylus



Tutorial on the advantages of Apple TV:

<http://elevatedmath.com/blog/2011/11/30/apple-tvs-educational-advantages-in-the-classroom-and-at-home/>



# Resources for teaching and learning

✦ [Yourteacher.com](http://Yourteacher.com)

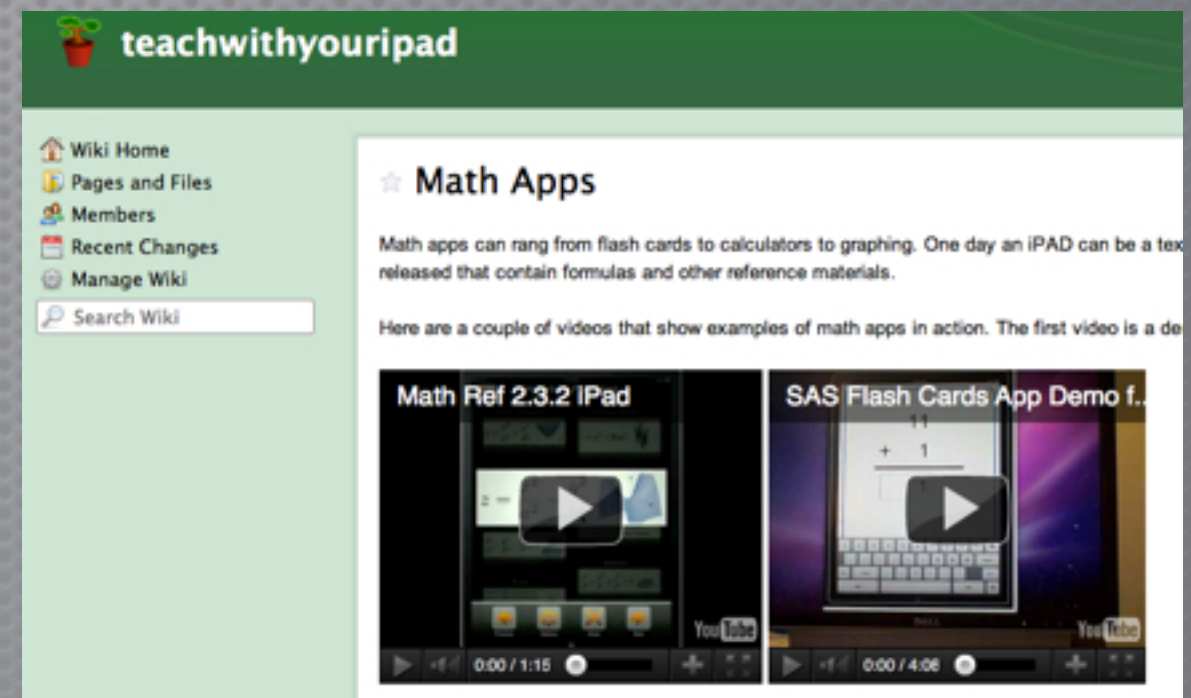


The screenshot shows the homepage of 'YourTeacher', which is described as 'Your Personal Math Teacher'. The site offers thousands of online math lessons. A key feature is that every lesson includes clear, concise, step-by-step instruction from an actual teacher. The interface includes navigation buttons for 'Videos', 'Practice', 'Self-Test', 'Worksheet', and 'Notes'. A central video player shows a teacher pointing at a whiteboard. To the right, there are sections for 'INDIVIDUALS' (perfect for tutoring, homework help, standardized test prep, homeschooling, and adult education) and 'SCHOOLS' (introducing the first complete line of math eBooks for the iPad). A badge indicates '24/7 Access! Works on iPhone, iPad, & Droid!'.

✦ Teachwithyouripad

<http://teachwithyouripad.wikispaces.com/Math+Apps>

Math apps for all age groups. Has calculators, flash card programs, geometry and algebra. Wolfram Alpha best for calculus and beyond courses.



The screenshot shows the 'teachwithyouripad' website. The header is green with a potted plant icon. A sidebar on the left contains navigation links: 'Wiki Home', 'Pages and Files', 'Members', 'Recent Changes', 'Manage Wiki', and a 'Search Wiki' box. The main content area is titled 'Math Apps' and includes an introductory paragraph: 'Math apps can range from flash cards to calculators to graphing. One day an iPad can be a text released that contain formulas and other reference materials.' Below this, it says 'Here are a couple of videos that show examples of math apps in action. The first video is a de...'. Two video thumbnails are shown: 'Math Ref 2.3.2 iPad' and 'SAS Flash Cards App Demo f...'. Both videos have a play button and a progress bar at the bottom.



# Math Apps

				
StatsMate	SAT Math	SAT Geometry	KA:Statistics	KA:Probability
				
KA:PreCalculus	Math Notes	Equation	Math Ref Free	Trigonometry
				
FormulusFree	Solver	iFormulas	formule	GRE Ma...tions
				
AFactorTree	Math Formulas - R... Education <a href="#">View In iTunes &gt;</a>	Symbolic Calculator Education <a href="#">View In iTunes &gt;</a>	Graphing Calculat... Education <a href="#">View In iTunes &gt;</a>	SpaceTime - Scien... Education <a href="#">View In iTunes &gt;</a>

New apps come out all the time.  
Search the app store in the  
education category. for more info:

[ealexis@csu.edu](mailto:ealexis@csu.edu)



# Wolfram Alpha support materials

<http://www.wolfram.com/mathematica/features/productivity-and-usability.html> - description of the various features of the program

<http://www.youtube.com/watch?v=LWaJluCCw4c>  
Independent App review

<http://products.wolframalpha.com/courseassistants/>  
Other Wolfram courses with helpful materials. "Course Assistant Apps"





# Resources for teaching and learning

## ✦ educreations.com


“Educreations turns your iPad into a recordable whiteboard. Creating a great video tutorial is as simple as touching, tapping and talking. Explain a math formula...Create an animated lesson...add commentary to your photos...”

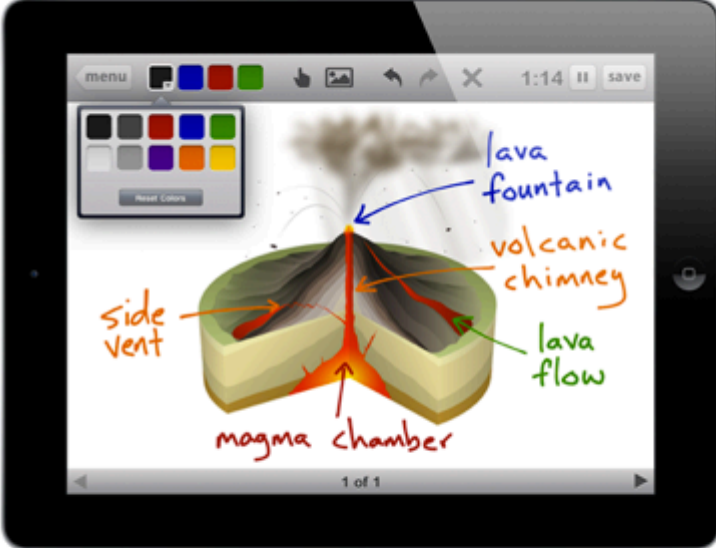
educreations Already registered? [Log In](#)

**Teach what you know.  
Learn what you don't.**

Create and share great video lessons with your iPad or browser.

[Get Started](#)  
(it's free)






**Showcase****Learn More**

Microwave ovens emit photons with a wavelength of about 12.2 cm. What is the energy (in J) of a single photon of energy from a microwave oven?

$E = hf$     $f = \frac{c}{\lambda}$

$E = \frac{hc}{\lambda} \rightarrow \frac{J \cdot s \cdot \cancel{m}}{m} = J$

 **Energy Of A Photon**  
by Douglas Errett


We can use  $\frac{\text{baby}}{\text{memory}} = \frac{\text{baby}}{\text{memory}}$

$\frac{5}{12} = \frac{4}{4+x}$

$(12)(4) = 5(4+x)$


$48 = 20 + 5x$

$28 = 5x$     $x = \frac{28}{5}$

 **Geometry Side Splitter Theorem. Unit 5**  
by Cindy Percival

Thanks for Watching!

by Shreya, Abi U, AND AMEYAP.

 **Subtracting With Unlike Denominators, Final!**  
by Cris Lawson

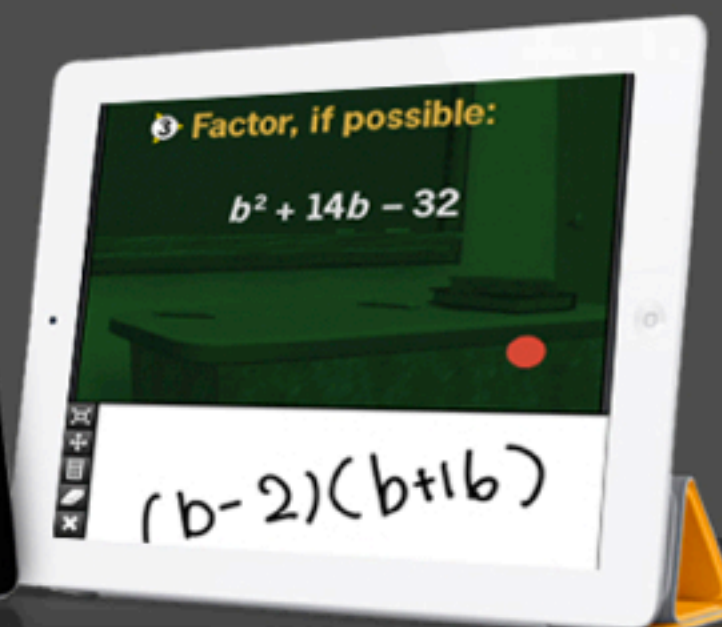
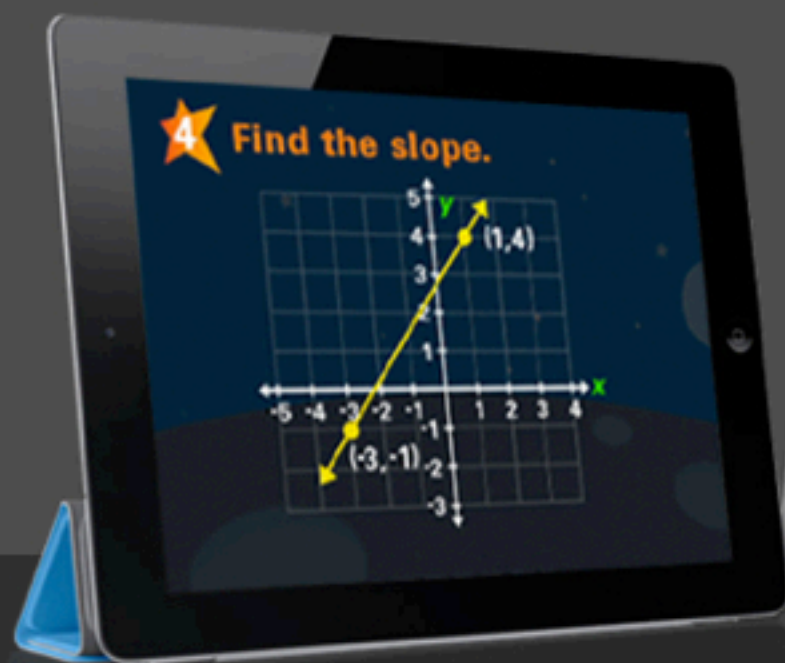


# Resources for teaching and learning

<http://elevatedmath.com/>

## ElevatedMath

[Blog](#) [Contact](#) [Print Material](#) [Press Kit](#)



College Testing

Certain designated lessons can lead to higher test scores on the ACT and SAT



# WolframAlpha course assistants

<http://itunes.apple.com/us/app/wolfram-calculus-course-assistant/id410594105?mt=8>



Screenshots





# WolframAlpha blog review and hands-on exercise

<http://blog.wolframalpha.com/2010/09/02/more-math-help-from-wolframalpha/>

The screenshot shows the WolframAlpha Blog homepage. At the top, there is a search bar with the text "What would you like to know about?". The navigation menu includes links for HOME, ABOUT, PRODUCTS, BUSINESS, and RESOURCES. The main header features the WolframAlpha logo and the text "WolframAlpha Blog". A search bar for the blog is located on the right side of the header.

The featured article is titled "MORE MATH HELP FROM WOLFRAM|ALPHA" and is dated September 2, 2010. It has 7 comments and is shared on various social media platforms. The author is Crystal Fantry. The article text reads:

Posted by **Crystal Fantry**

A new school year is here, and many students are diving into new levels of math. Fortunately, this year, you have Wolfram|Alpha to help you work through math problems and understand new concepts. Wolfram|Alpha contains information from the most basic math problems to advanced and even research-level mathematics. If you are not yet aware of Wolfram|Alpha's math capabilities, you are about to have a "wow" moment. For the Wolfram|Alpha veterans, we have added many math features since the end of the last school year. In this post, we're highlighting some existing Wolfram|Alpha math essentials, such as adding fractions, solving equations, statistics, and examples from new topics areas like cusps and corners, stationary points, asymptotes, and geometry.

You can access the computational power of Wolfram|Alpha through the free [website](#), via [Wolfram|Alpha Widgets](#), with the Wolfram|Alpha App for [iPhone](#), [iPod touch](#), and the [iPad](#)! Even better, the Wolfram|Alpha Apps for [iPhone](#), and [iPod touch](#), and the [iPad](#) are now on sale in the [App Store](#) for \$0.99 though September 12.

If you need to brush up on [adding fractions](#), [solving equations](#), or [finding a derivative](#), Wolfram|Alpha is the place to go. Wolfram|Alpha not only has the ability to find the solutions to these math problems, but also to show one way of reaching the solution with the "Show Steps" button. Check out the post "[Step-by-Step Math](#)" for more on this feature.

The right sidebar contains a "SHARE AND SUBSCRIBE" section with social media icons for RSS, Facebook, Twitter, LinkedIn, YouTube, and Tumblr. Below this is a "FEATURED" section titled "TOP FIVE POSTS" with the following entries:

- Announcing Wolfram|Alpha Pro**  
Experience the next big step in computational knowledge
- An App for Every Course, and More**  
Gain a competitive advantage with Wolfram Course Assistant Apps
- The Wolfram Education Portal is Here!**  
Integrate technology into your classroom using a free dynamic textbook, lesson plans, other course materials.
- NFL Stats and Data—Teams, Players, Comparisons**  
Statistics for every NFL team, game, and player from the past 25 years. Compare players or teams.
- Shopping Goes Geek with Wolfram|Alpha**  
Access data on over 35,000 appliances and electronics. Search a specific product or category.

At the bottom of the sidebar, there are links for "CATEGORIES" and "ARCHIVE".



# Wolfram Alpha support materials

<http://itunes.apple.com/us/app/wolfram-calculus-course-assistant/id410594105?mt=8>

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.



# MATLAB Mobile

<http://itunes.apple.com/us/app/matlab-mobile/id370976661?mt=8>

Provides remote access to a MatLab workspace.

Cloud access to the program, good resource for engineers and should get some improvements with time.





# Khan Academy iPhone app series - Videos about Math topics

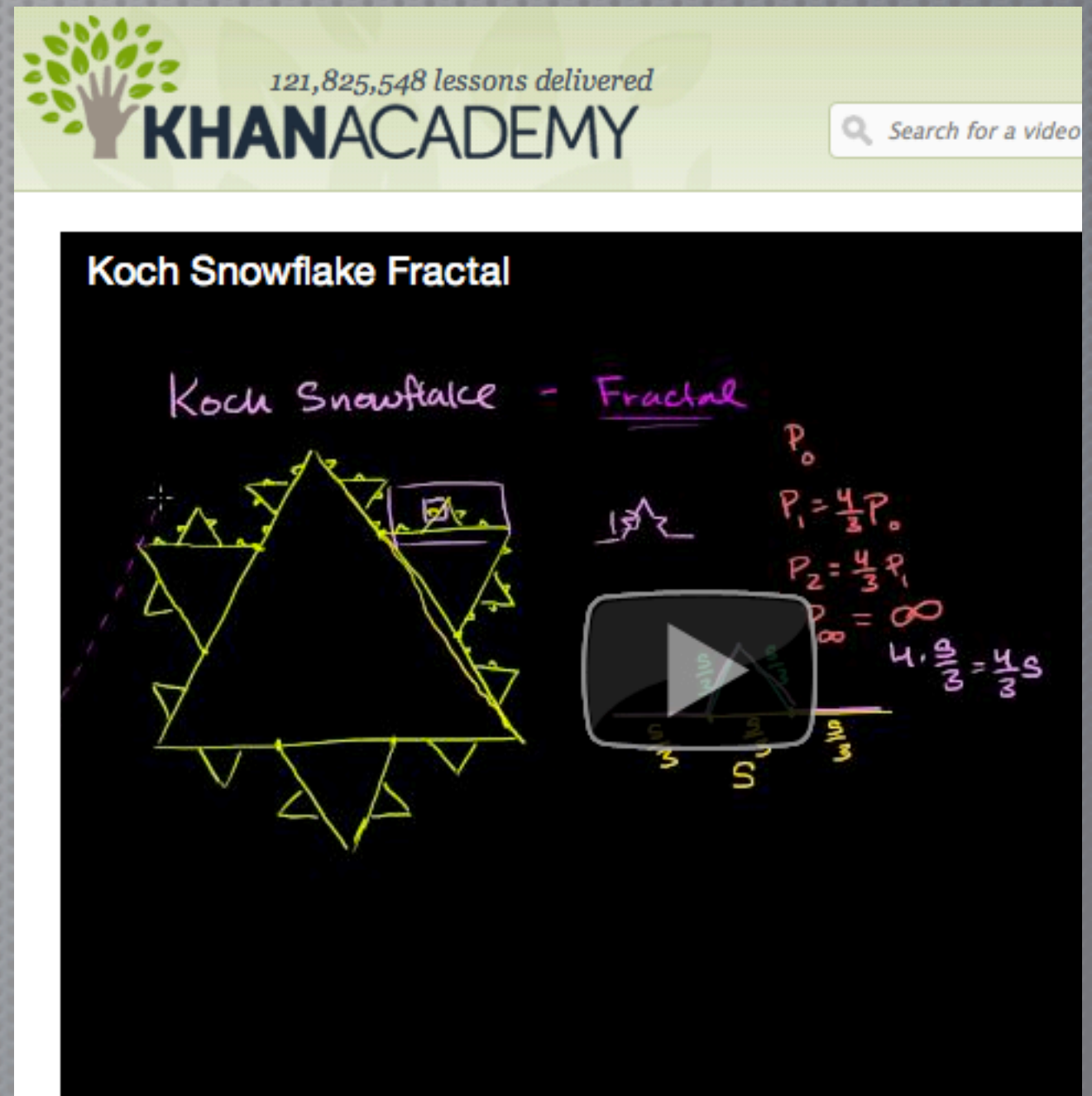
[www.khanacademy.org](http://www.khanacademy.org)

<http://itunes.apple.com/us/app/khan-academy-a-classroom-in/id361975619?mt=8>

“Watch. Practice. Learn almost anything for free.” Videos about many math topics.

Includes:  
60+ apps covering college level math and science courses.

Free videos independently made.



The screenshot shows the Khan Academy interface. At the top, it says "121,825,548 lessons delivered" and "KHANACADEMY". A search bar on the right contains the text "Search for a video". The main content area is titled "Koch Snowflake Fractal" and displays a video player. The video content shows a hand-drawn diagram of a Koch Snowflake Fractal. The diagram is a large equilateral triangle with smaller triangles attached to each side. To the right of the diagram, there are handwritten mathematical formulas in red and purple ink:

$$P_0$$
$$P_1 = \frac{4}{3} P_0$$
$$P_2 = \frac{4}{3} P_1$$
$$P_n = \left(\frac{4}{3}\right)^n P_0$$
$$L_n = \left(\frac{1}{3}\right)^n L_0$$

The video player has a play button in the center. The background of the video is black, and the fractal is drawn in yellow and green lines.