



A Mathematics Help Site on the Internet

# S.O.S Mathematics

Mohamed Khamsi  
Helmut Knaust  
Nancy Marcus



Math Medics, LLC □ P.O. Box 12395 □ El Paso TX 79913



International Conference on Technology in Collegiate Mathematics

*October 31 - November 3, 2002*



# A Mathematics Help Site on the Internet

www.sosmath.com

## ☐ An Overview of the Web Site Itself

- Philosophy & Design
- The Building Blocks
- A Short Visit
- The “S.O.S. CyberBoard”

## ☐ A Brief History of *Sosmath.com*

- From *www.math.utep.edu/sosmath*  
... to *www.sosmath.com*

## ☐ Publishing on a Commercial Server

- What Do You Need to Get Started?

## ☐ The Users of *Sosmath.com*

- Usage and User Statistics



# A Mathematics Help Site on the Internet

## Original Philosophy

“S.O.S. Math is the website at the University of Texas at El Paso, where you can work with material to help you:

- ☐ Do your homework
- ☐ Prepare for a test
- ☐ Get ready for class”



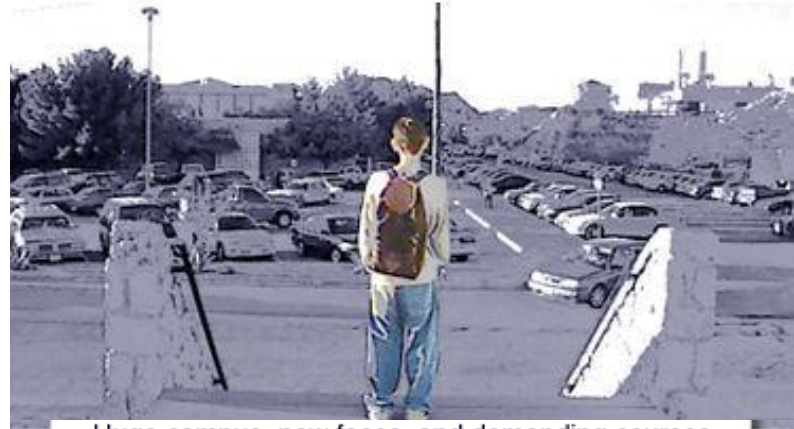


# A Mathematics Help Site on the Internet

## Target Audience

- ☐ High School Students in their Junior and Senior Year
- ☐ University Freshmen and Sophomores

College takes getting used to...



Huge campus, new faces, and demanding courses, it can be challenging for incoming Freshmen to cope with and do well in their classes.



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## Design Choices

- ❑ Make the browsing experience as easy for the users as possible:
  - No frames, no plug-ins
  - Maximal browser compatibility
  - Easy navigation
  - Uniform look of the pages
  - Keep bandwidth requirements low
  - Allow for user feedback

*S.O.S.Math started in 1996  
Netscape 2.02 had just been released!*





# A Mathematics Help Site on the Internet

## Subjects on Our Site

[www.sosmath.com](http://www.sosmath.com)

### 1 - High School Mathematics

Algebra  
Trigonometry

### 2 - College Mathematics

Calculus  
Matrix Algebra  
Differential Equations

### 3 - Miscellaneous Add-Ons

“CyberExams” (Practice Tests)  
Tables and Formulas  
“S.O.S CyberBoard” (Bulletin Board)



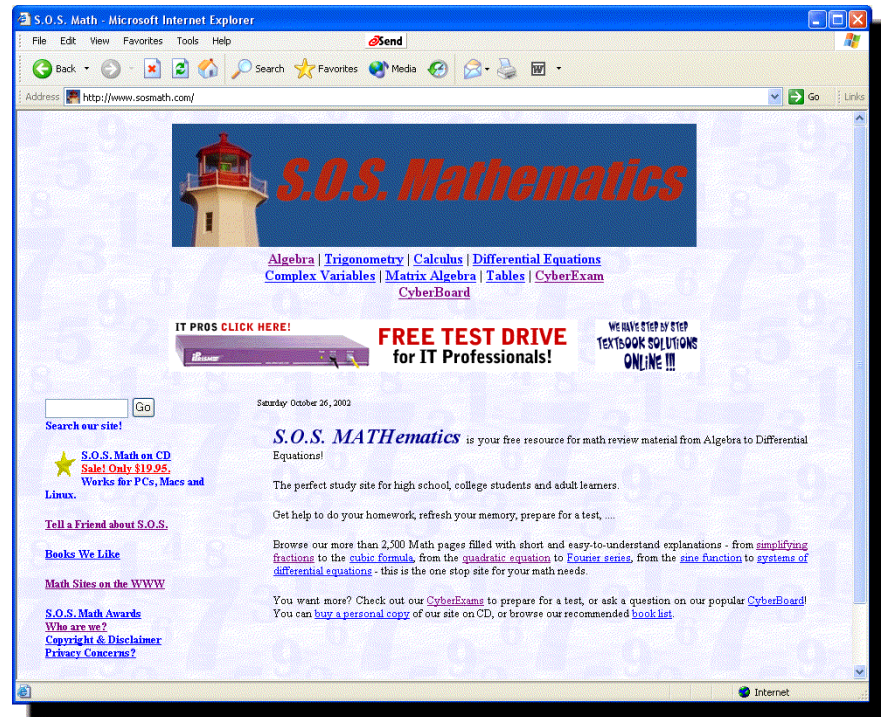


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## A Short Visit to [www.sosmath.com](http://www.sosmath.com)

[www.sosmath.com](http://www.sosmath.com)

- ❑ [Homepage](#)
- ❑ [Algebra](#)
  - [Reducing fractions](#)
  - [Solving equations with radicals](#)
  - [Solving polynomial inequalities](#)
- ❑ [Calculus](#)
  - [Concavity and points of inflection](#)
  - [The Intermediate Value Theorem](#)
- ❑ [Differential Equations](#)
  - [Orthogonal trajectories](#)





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## The “S.O.S. CyberBoard”

- ☐ Provides a valuable service to our users
- ☐ Helps us interact with our users
- ☐ Helps us to improve our site by accommodating user suggestions
- ☐ Requires a considerable time commitment
- ☐ Current bulletin board technology is not well-suited for mathematical notation.

Visit the [S.O.S. CyberBoard](http://www.sosmath.com)





# A Mathematics Help Site on the Internet

## A Brief History I

www.sosmath.com

Summer 1996

Planning

First pages written

August 21, 1996

Launch of

[www.math.utep.edu/sosmath](http://www.math.utep.edu/sosmath)

Summer 1997

Production of a large chunk of the

Summer 1998

material on S.O.S. Math



# A Mathematics Help Site on the Internet

## A Brief History II

www.sosmath.com

Spring 1999

Negotiations with the University of Texas at El Paso to start S.O.S. Mathematics as a commercial enterprise.

May 14, 1999

Launch of [www.sosmath.com](http://www.sosmath.com) on a shared web server.

July 5, 1999

Start of the S.O.S. Mathematics CyberBoard.

October 5, 2001

[www.sosmath.com](http://www.sosmath.com) moves to a dedicated web server.



# A Mathematics Help Site on the Internet

## To Get Started...

- ☐ A prudent design
- ☐ A sensible plan
- ☐ Time,
- ☐ More time,
- ☐ ... And more time!
- ☐ A wonderful team!
- ☐ Some knowledge of technology

[www.sosmath.com](http://www.sosmath.com)



# A Mathematics Help Site on the Internet

www.sosmath.com



## Support

From 1996-1998 we obtained generous support from the following sources:

- ☐ *Network Resources Training Site* (NASA) grant at UTEP
- ☐ *Model Institution for Excellence* (NSF) grant at UTEP
- ☐ College of Science
- ☐ Department of Mathematical Sciences



# A Mathematics Help Site on the Internet

## To Get Started on a Shoe String Budget

- ☐ Web Hosting Service, \$10-30 per month for a shared host
- ☐ Domain Name, about \$35 per year
- ☐ Software
  - FTP client, \$45
  - Computer algebra system?, \$200-1,500
  - Graphics editing software, \$70-1,000
  - Back-Up capability, \$0-100



# A Mathematics Help Site on the Internet

## Web Hosting



File Upload and Host Management:

- FTP protocol, using *WSftp* etc.
- Telnet protocol



Local Computer:

- Preferably a PC with Windows-OS
- Fast internet connection

Remote Web Host:

- Usually on a PC with Linux-OS
- May host 100s of web sites

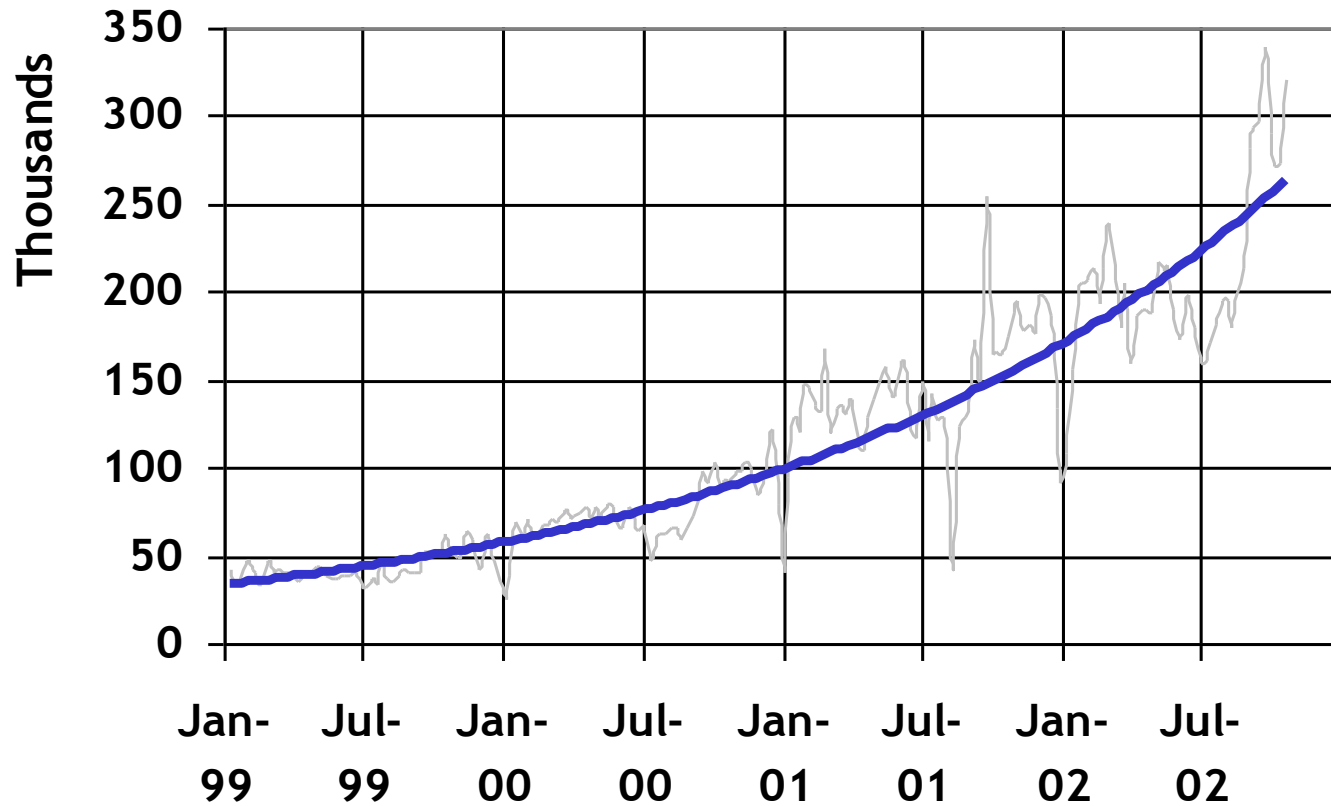
[www.sosmath.com](http://www.sosmath.com)





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## Page Hits Per Week (html hits)



[www.sosmath.com](http://www.sosmath.com)



# A Mathematics Help Site on the Internet

## Popularity of Subject Areas

<u>Subject Area</u>	<u>Percent of total usage</u>
Algebra	43%
Calculus	15%
Differential Equations	9%
Tables and Formulas	8%
CyberExams	8%
Trigonometry	6%
Matrix Algebra	5%

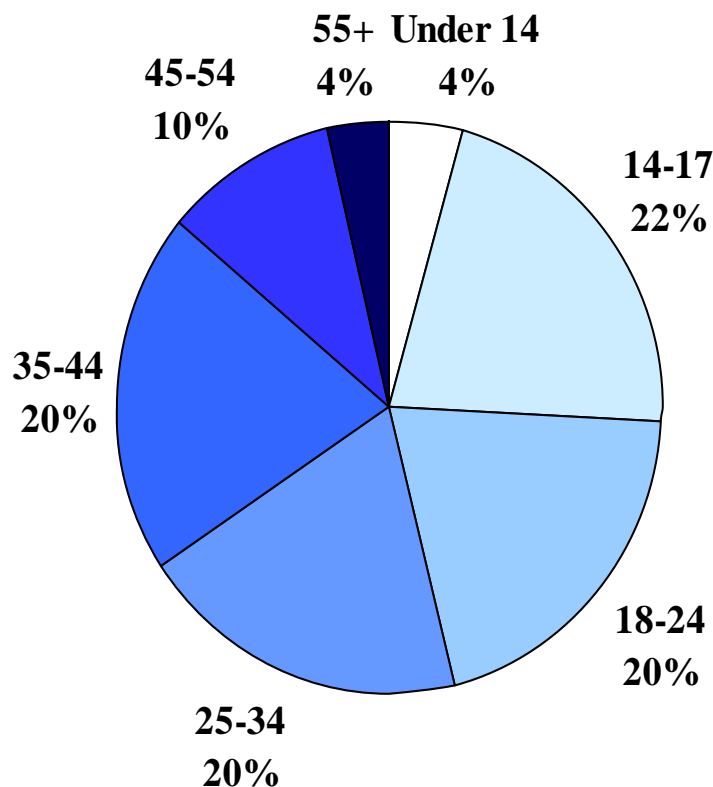
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## Age Distribution of Users



[www.sosmath.com](http://www.sosmath.com)

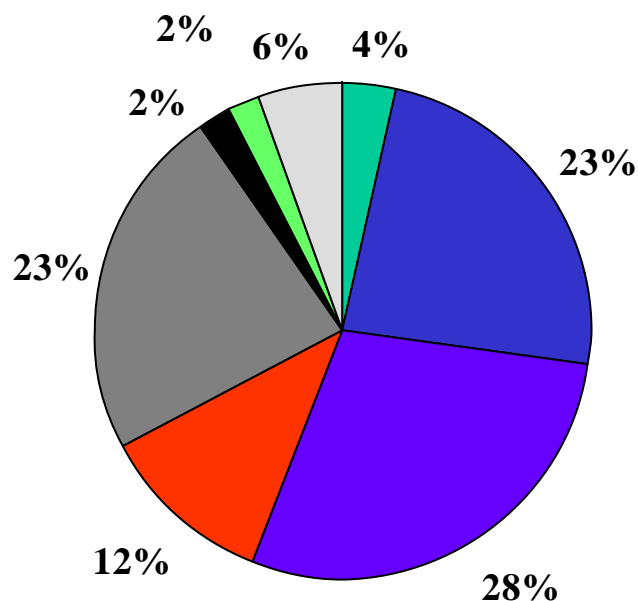


Data Source: Survey November 2000, 352 participants



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## Occupation of Our Users



Pupil (Grade K-8)	Student (Grade 9-12)	College Student
Teacher	Other Professional	Full-Time Parent
Retired	Other	



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## More User Information

www.sosmath.com

<u>Have you bookmarked S.O.S. Math?</u>		<u>Gender</u>	
Yes	63%	Female	50%
No	37%	Male	48%



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## Country of Origin

<u>Country</u>	<u>Views</u>
USA	56.9%
Canada	10.5%
United Kingdom	4.3%
Australia	2.4%
Philippines	1.7%
Singapore	1.5%
India	1.5%
Hong Kong	1.2%
Malaysia	1.1%
Germany	1.1%
Mexico	1.0%
Other	17.9%

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**Contact us at:**

<http://www.sosmath.com/mail.php>

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