



Mathematics Professor Elias Saab developed the online math tests site that Google ranks near the top of millions of similar sites worldwide.



global factor in math

AN MU MATHEMATICS WEB SITE IS AMONG THE TOP SITES WORLDWIDE FOR ONLINE MATH TESTING.

MORE THAN 20 MILLION Web sites offer assistance for improving mathematics skills through online practice tests, and MU's site is one of the most important.

Google and Yahoo rank mathonline.missouri.edu, developed by mathematics Professor Elias Saab, among the top listings that offer online tests in algebra, calculus and mathematics.

Saab developed the site as a placement aid for prospective students seeking entry to first-year calculus, algebra or remedial math courses at Mizzou, and he began testing the site online in 2004. Interest in the Web math tests quickly spiraled into huge numbers of "hits" that demonstrate a reach far beyond Mizzou.

Students and teachers use MU's online algebra and calculus tests as learning and assessment tools for students considering enrollment in such courses at any university. Also popular are the practice tests for high school algebra, geometry and trigonometry.

To access the site and check its page ranking, do a Google search of "online math tests," "online algebra tests" or "online calculus tests." The number of Web sites will appear at the upper right.

Saab especially likes the site's ability to serve as a self-evaluating tool. "Students enroll at a university with many different backgrounds in math," he says. "These tests help students achieve a common core of mathematical skills and provide a tool for schools and teachers to assess their students' readiness in math to come to Mizzou or go to any college."

Unlike many sites that offer tutoring services, MU's math testing site is free, thanks to the generosity of some alumni. The Miller family of Miller's Professional

Imaging provided the financial support to develop the Web pages as well as to maintain and expand the site.

At mathonline.missouri.edu, students can practice the types of math problems they will encounter in university placement exams. Site visitors can begin with easy problems and move to more challenging examples.

You, too, can do the math. You may take the tests in two different formats, either multiple-choice or single answers, so select your preference. Then choose the number of problems you want to work and click on your answer to each problem.

When you finish the problems, you will receive immediate feedback on your work, including the correct answers and detailed solutions. If you don't do well on a test, you can repeat the same test or practice new problems on the same concept. Because the site has a large database of problems, you can try again and again.

Such practice, Saab says, is an invaluable method of learning mathematics. "Teaching experience has shown that the majority of students learn mathematics by doing practice problems, not simply by reading lecture notes," he says.

Saab believes the site can be especially helpful to students in rural areas who may not have specialized teachers for all math courses, and, of course, he hopes the testing experience will help MU attract some of the most-promising students.

The tests also benefit high school math teachers who need material for their computer labs. At MU's mathonline, teachers can give all their students the same problems with identical parameters, or they can offer problems at the same level of difficulty but with different parameters.

"High school students and their teachers have figured out how useful this site is for students preparing for college exams," says mathematics department Chair Mark Ashbaugh. "A huge number of hits will come from junior high and even younger students who are being exposed to advanced mathematics."

Google, by the way, uses a math formula to objectively measure the importance of Web pages. That equation involves more than 500 million variables and 2 billion terms. It's not available for practice tests online.

