

# The Sum Times

News, notes, and inspiration from Walla Walla University

Fall 2010

## SEE FOR YOURSELF

Visit our campus to discover more about the Department of Mathematics firsthand. It's simple to schedule a campus visit! Call (509) 527-2091, or find more information and register at [wallawalla.edu/visit](http://wallawalla.edu/visit).

## ONE TOUGH TEST

Did you know that Walla Walla University is the only Seventh-day Adventist university that regularly offers training for and administers the grueling Putnam Mathematics test? How well would you do on the Putnam? Take our Putnam Pop Quiz on page 4 to see how you'd stack up!

## Math Student Has Her Pi (and eats it too)

3.14592...how many people can get any further than this reciting the digits of pi? Senior bioengineering major and math minor Lindsay Kelstrom can; in fact, she does every year at Walla Walla University's Randy Yaw Pi Contest during Alumni Homecoming Weekend. In 2010 she recited 708 digits, winning the contest for the third year in a row.

"I became interested in math during high school," says Kelstrom. "I had a really great math teacher, and it was something I both excelled at and enjoyed."

The fun she found in numbers has resulted in a \$314.15 scholarship every year she has attended WWU, her prize for winning the annual pi contest. In addition to the scholarship, the first place winner also receives a dollar coin specially prepared to have 0.3141 of its original weight.

The annual pi contest is named for Randy Yaw, '84 mathematics graduate who sponsors all of the prizes and coordinates the event each spring.

"Though the contest is open only to students, we have in the past allowed children to compete during the intermission," explains Ken Wiggins, chair of the Department of Mathematics. "They sometimes know more digits than the students."

Appropriately, the second place prize

is \$31.41 in cash; the third-place winner pockets \$3.14. Regardless of who wins, all



**Pi champ:** Lindsay Kelstrom recited 708 digits to win the pi contest in 2010.

who participate in and attend the contest are invited to enjoy a delicious slice of pie following the event.

And what's Kelstrom's secret method for memorizing the numbers?

"I don't really have a secret," she says. "I try to find patterns

within sections of numbers and remember the order of the patterns, but mainly it's just a lot of reciting the digits over and over again."

Though Kelstrom is not sure what she will be doing after graduation—a year learning language in Spain, medical school or graduate school—she is certain of one thing: She will participate in the pi contest again in 2011. Her goal is to reach the record number of recited digits, which is over 1,200, and win for the fourth year in a row.

## In Good Company: Pi Contest's Past Champions

The 2011 Randy Yaw Pi Contest winner will earn \$314.15 and join these other champs on the winner's list:

- **1994:** Loren Hanson, 210 digits.
- **1995:** Loren Hanson, 611 digits.
- **1996:** Loren Hanson, 1,004 digits.
- **1997:** Chris Ramsey, 198 digits.
- **1998:** Jerry Heartman, 344 digits.
- **1999:** Ethan Pooley, 563 digits.
- **2000:** Hui En Pham, 1,011 digits.

- **2001:** Hui En Pham, 1,051 digits.
- **2002:** Hui En Pham, 1,005 digits.
- **2003:** Andrea Yip, 234 digits.
- **2004:** Brandt Anderson, 411 digits.
- **2005:** Brandt Anderson, 437 digits.
- **2006:** Brandt Anderson, 620 digits.
- **2007:** Brandt Anderson, 524 digits.
- **2008:** Lindsay Kelstrom, 461 digits.
- **2009:** Lindsay Kelstrom, 501 digits.
- **2010:** Lindsay Kelstrom, 708 digits.

# The Sum Times

## Helping Our Own: Making Math Possible

### A LASTING LEGACY

Give future mathematics students a strong start by supporting scholarships through Walla Walla University. Contact Breanna Bork at (509) 527-2635 or [breannabork@wallawalla.edu](mailto:breannabork@wallawalla.edu) to learn more.

### STAY CONNECTED

Check in with fellow math majors, see what our current students are doing, and receive WWU information every month:



"Like" the Department of Mathematics on Facebook.



Link to Walla Walla University on LinkedIn.

Or, sign up for WWU's alumni e-newsletter at [wallawalla.edu/enewssignup](http://wallawalla.edu/enewssignup).

Last year Walla Walla University had more math majors than in the last several years, and there has been an increase in the number of women declaring math as their major.

Several scholarships make it possible for students to enjoy rigorous coursework at WWU:

- **Departmental Merit Scholarship.** Each year \$600 is given to one math major based on academic achievement.

- **Jensen Scholarship.** The student with the highest average in the beginning three calculus classes starting autumn quarter is awarded the scholarship. This endowed scholarship awarded \$1,000 last spring and is made possible by the gifts of Knut Jensen ('60 math) in appreciation for his WWU education and in memory of his son, Brian, who died in a drowning accident at age 9.

- **Kenneth Schmidt Scholarship.** Based on both financial need and academic merit, this scholarship is typically \$1,000. Kenneth Schmidt was a married student when he attended WWU, and he remembers how difficult finances can be in that situation. This scholarship is also in honor of the education that his sons Robert ('88 math) and Kevin ('90 engineering) received from WWU.

- **Murray and Ilene Johnstone Schol-**

**arship.** This endowed scholarship is through the generous gifts of Murray ('50 business) and Ilene ('46 math) Johnstone. Murray was one of the first WWU students to complete the CPA exam and worked as an accountant. Ilene applied to take a tax preparer's exam, however she became an enrolled agent with the IRS and a licensed tax consultant after applying for the wrong exam. Last spring this scholarship awarded \$940 each to three students. Students must have a minimum 3.5 GPA, have junior or senior class standing, and a significant commitment to work.

- **Lilah Schlotthauer Risinger Scholarship.** This scholarship was established by Lila Schlotthauer Risinger, the first chair of the WWU Department of Mathematics (formed in 1934). This \$1,000 scholarship is awarded to the senior with the most promising plans for a career in mathematics.

- **Mathematics Scholarship.** Funded by an alumnus, the amount of this scholarship can be as high as \$1,000. It is sometimes split among two or more students.

- **Verlin and Thelma Cochran Memorial Scholarship.** As a token of thanks to his parents, this endowed scholarship is given by their son, Lenhart, and his wife, Rowena. Every year it is awarded to engineering and mathematics students with financial need and academic merit.

- **Randy Yaw Pi Contest Scholarship.** This scholarship goes to the student who wins first place in WWU's annual pi contest by reciting more digits than other competitors. The amount is \$314.15, made possible from gifts made by Randy Yaw ('84 math).

- **Mathematics Alumni Scholarship.** Gifts from math alumni fund this scholarship. It is based on both need and merit, and can be as much as \$1,000. It is sometimes split among two or more students.

Thank you, donors, for your generous support of WWU's mathematics majors. For more information about scholarships, or to establish a new scholarship, please contact Breanna Bork in the Office of University Advancement at (509) 527-2635 or by e-mail at [breanna.bork@wallawalla.edu](mailto:breanna.bork@wallawalla.edu).



Students like Candace Davis, junior math major, benefit from scholarships made possible by our alumni.

# From Mathematics to Medicine

## *Youngest math graduate plans to help people in need*

One of Irving Basanez' favorite quotes goes like this: "The joy of learning is as indispensable in study as breathing is in running. Where it is lacking there are no real students, but only poor caricatures of apprentices who, at the end of their apprenticeship, will not even have a trade" (Simone Weil).

"I firmly believe that having fun and enjoying what you're doing is the key to success," he says. "Even in elementary school I enjoyed math, so studying it in college seemed a natural choice."

Being raised in Texas meant the decision to attend Walla Walla University was a difficult one; his family didn't like to see him move so far away. But since Basanez was also interested in bioengineering WWU was a top option.

With help from Vice President for Academic Administration Ginger Ketting-Weller, who made sure Basanez' finances were worked out, and after several phone calls to his parents from Spanish-speaking faculty members, Basanez enrolled at WWU. He graduated in 2009 as the Department of Mathematics' youngest graduate at age 18.

At barely 19, his transition to University of Texas after WWU made Basanez UT's youngest medical school student. He'd always been torn between teaching mathematics in a university setting and practicing medicine, but he felt that becoming a doctor would best suit his lifelong goal.

"I aspire to be a missionary doctor," he explains. "Being able to help people in need in a very direct way such as improving their health is one of the most rewarding things I can imagine doing."

This past summer Basanez volunteered at Ile-Ife Adventist Hospital in Nigeria, working with a Loma Linda University family medicine graduate. It was this unforgettable experience that solidified for Basanez what he wants to do with his life.

Basanez is more than satisfied with the



**Focused:** Irving Basanez '09 graduated from WWU at age 18, and was the youngest medical school student at the University of Texas. "I feel like my entire educational experience at WWU was excellent. Being part of the honors program and pursuing a degree in mathematics was probably one of the most intellectually challenging things I've done in my life; in some ways, medical school has been easier."

education he received at WWU. "I feel like my entire educational experience at WWU was excellent. Being part of the honors program and pursuing a degree in mathematics was probably one of the most intellectually challenging things I've done in my life; in some ways, medical school has been easier."

What was the best part of his WWU experience?

"The people are definitely the best part of WWU," says Basanez without hesitation. "WWU is like a big family. The sense of community there is incredible; people are extremely friendly and make you feel comfortable. The friends I have made at WWU will most certainly be lifelong."

## WWU'S MATH TEAM

Ken Wiggins, PhD, Chair  
Professor of Mathematics

Tim Tiffin, DA  
Professor of Mathematics

Tom Thompson, PhD  
Professor of Mathematics

Jonathan Duncan, PhD  
Associate Professor of  
Mathematics

Heidi Haynal, PhD  
Assistant Professor of  
Mathematics

[math.wallawalla.edu](http://math.wallawalla.edu)

# The Sum Times

## Strength in STEM Studies

### DID YOU KNOW?

WWU math majors as a group almost always score in the top 5 percent on the Major Field Test.

That means that our graduates score better than 95 percent of other math graduates across the nation.

There's been an increasing national emphasis on education in STEM—science, technology, engineering, and math. In September, President Barack Obama announced an attempt to recruit 10,000 STEM teachers for grades K-12 in a serious effort to increase proficiency in these areas of study.

While teaching is one option for mathematics majors, other options abound. Professionals in finance, medical research, engineering, and more rely on quality mathematics education for success. And in 2009, CareerCast.com ranked mathematician as the best job, followed by actuary and statistician (ranked second and third).

Graduate success indicates Walla Walla University already offers excellence in math studies. That's why Ken Wiggins, chair of the Department of Mathematics, is part of a strategic effort to perfect the quality in WWU's already-strong STEM studies, providing incredible advantages for our graduates.

"The demand is clear," Wiggins says. "We have the resources and talent to keep our students in the nation's top rankings. Through our STEM initiatives, WWU students can expect studies in physics, chemistry and biochemistry, biology, engineering, environmental sciences, and math to give them every possible tool for success."

## Pop Quiz! Try This Putnam Puzzler

Consider a set  $S$  and a binary operation  $\ast$ , that is, for each  $a, b \in S$ ,  $a \ast b \in S$ . Assume that  $(a \ast b) \ast a = b$  for all  $a, b \in S$ . Prove that  $a \ast (b \ast a) = b$  for all  $a, b \in S$ . Discover the answer at [math.wallawalla.edu](http://math.wallawalla.edu).

RETURN SERVICE REQUESTED

*math.wallawalla.edu*  
204 S. College Avenue  
College Place, WA 99324-1198  
(509) 527-2862

DEPARTMENT OF MATHEMATICS

