

# The Almagest

*The bi-weekly newsletter of the Department of Mathematics and Computer Science. Your trusted source for news.*

Volume 4, No. 3

October 10, 2011

Alma College  
Alma, MI 48801

## Math & Computer Science Colloquium

Alma College alumna **Laura Reeves** is co-founder and principal of *StarSoft Solutions*, a company that provides consulting services focused on planning and implementing high value, high performance data warehouse and decision support systems. She has 26 years of experience in the field and has written two books: she is the author of *A Manager's Guide to Data Warehousing* and the co-author of the first edition of *The Data Warehouse Lifecycle Toolkit*. In her talk she will share her insights about:



- Data warehousing/business intelligence
- Information technology industry trends
- Preparing for long term career success

### *“Business Intelligence: Data Driven Solutions”*

Presenter: **Laura Reeves**

Date: **Monday, October 17<sup>th</sup>**

Time: 4:00

Place: SAC 216

*Refreshments at 3:50.*

## Math Help Hours

**Monday through Thursday: 7-10 pm**

**SAC 216**

## Focus on Faculty: Dr. Robert Molina

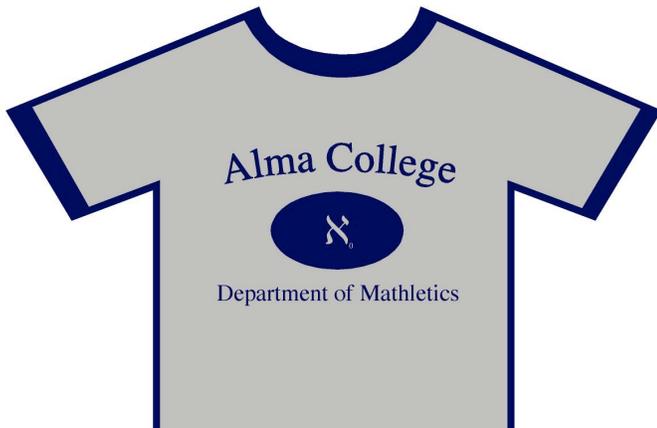


Born and raised in southern California, Dr. Molina made his trek east to Alma College in 1993. He started his education at a community college in Oregon and then went to Southern Oregon State University after taking a short break. Due to a poor background in math from high school, Dr. Molina actually began his math career in a basic algebra course. After plenty of hard work, he graduated and, instead of finding a job, decided to pursue his Ph.D. at Colorado State (he passed the qualifying exam on the first try). Six years later, Dr. Molina finished the task with a specialty in Graph Theory and Combinatorics and has been published about a dozen times since.

Along with math, Dr. Molina has many passions. He really enjoys physical fitness and can be often seen working out in the weight-room or out and about cycling. If he's not working out, he enjoys studying Spanish and has an ardent passion for guitars (he has about ten) and music. Dr. Molina is currently the *chair* of the Math & C.S. Department; he is a very humble person, who loves to talk about and help students with math. Stop in his office sometime and get to know him. His door is always open. *Jon Young*

## MATH Competition

You are invited to participate in the 17<sup>th</sup> annual MATH Challenge, held on **Saturday, November 5<sup>th</sup>**. The MATH Challenge is a *team-oriented*, 3-hour exam consisting of ten interesting problems dealing with topics found in the undergraduate math curriculum. Teams consist of 2 or 3 students, and you'll take the exam on campus from 9:30 am to 12:30. You may form your own team or you can simply be placed on a team. Before the exam, you'll be provided with a "hearty breakfast" of waffles, bagels, donuts, and juice. If you're interested, please contact Professor Sipka. By the way, all participants will receive a *cool t-shirt* similar to the one below.



## Solution to Previous Problem

What is the missing number?

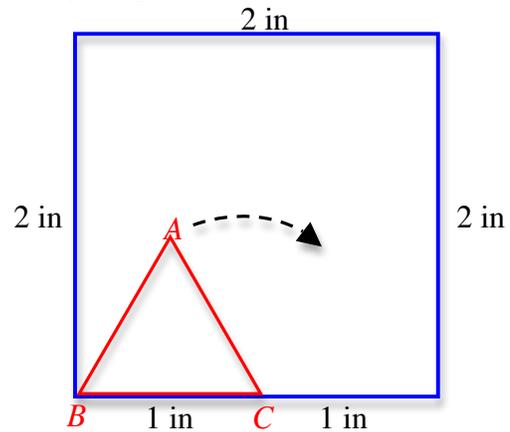
82	10	41	5	62	?
4	16	4	4	3	12

First year student **Charlie Stack** and sophomore **Phuong Tran** both submitted the correct answer within minutes of each other.

Charlie wrote: "I believe that the missing number is 8. You take the two digits in the top left box and add them together to get the top right, multiply them to get the bottom right, and divide the first by the second to get the bottom left."

## Problem of the Bi-Week

The diagram below shows a square with sides of length 2 inches and an equilateral triangle  $ABC$  with sides of length 1 inch sitting inside it. The vertex  $B$  is at one corner of the square and the side  $BC$  lies along the square's bottom edge. The triangle is rotated in a clockwise direction about its corners  $C, A, B$  in turn and rolls without slipping inside of the square. If the triangle is rotated until the corners  $A, B$ , and  $C$  have returned to their *original positions*, what is the **total distance** travelled by the point  $A$ ?



A prize of **\$2.00** will be awarded to the **FIRST** student who provides a correct solution. See Prof. Sipka.

Student assistant: Jonathan Young  
 Faculty advisor: Tim Sipka  
 Distribution: Deb Smith

If you would like to submit an announcement or a short article, please send it via e-mail to Tim Sipka ([sipka@alma.edu](mailto:sipka@alma.edu)).