

mathnews

Vol. XXVIII, No. 4

April, 2015

MAA celebrates 100

Years that is. The Mathematical Association of America was formed 100 years ago to “advance the mathematical sciences, especially at the collegiate level. Members include university, college, and high school teachers; graduate and undergraduate students; pure and applied mathematicians; computer scientists; statisticians; and many others in academia, government, business, and industry. All who are interested in the mathematical sciences are welcome. The MAA’s core interests are education, research, professional development, public policy, and public appreciation and its vision is to be the leading professional association in collegiate mathematics, the preeminent publisher of expository mathematics, the primary source of professional development programs for faculty, and the number one provider of resources for teaching and learning.

Travel Abroad

by Michelle Welch

I studied abroad this past summer for seven weeks in Barcelona, Spain. I travelled through the ISA program with the help of FSU’s Center for International Education. For these seven weeks I was an international student of Universitat Autònoma de Barcelona. I was able to take two classes: Spanish Civilization & Culture and an intermediate Spanish language course. In my free time I was able to travel outside of Barcelona to the island of Mallorca, nearby cities along the coast of Spain and France, and even Vienna, Austria. Although mathematics was not at the front of my mind while abroad, the beauty of mathematics was all around me. Barcelona’s leading architect, Antoni Gaudí, studied geometry and other mathematics principles, and his study influenced his design. Gaudí’s work can be found across the city of Barcelona in various forms. Intricate tessellations were found in the tiling of his buildings as well as the sidewalk of Passeig de Gràcia, found in the neighborhood in which I lived. Barcelona’s most well-known landmark designed by Gaudí, the basilica La Sagrada Familia, was breathtaking. When gazing at the remarkable architecture one can see the influence parabolas, hyperbolas, hyperboloids, the catenary arch, etc. had on Gaudí’s design. The museum inside La Sagrada Familia is devoted to the influence nature and mathematics had on his architectural designs. I did not think I would be learning any math while abroad, but I did! This trip was an experience of a lifetime, and finding an abundance of mathematics in Barcelona made it even more amazing!

KME Corner

KME will meet on April 29th to plan its year-end reading day picnic (May 13) and to elect officers for the coming year.

Solution to Previous Problem

The aliens’ arithmetic repeated here

$$13 + 15 = 31 \quad 10 \times 10 = 100 \quad 6 \times 3 = 24$$

seems to be in base 7, so we suspect they have 7 fingers.

A Modern Renaissance Man

Recently, John Urschel, offensive guard for the NFL’s Baltimore Ravens, first-authored a paper in the Journal of Computational Mathematics. It gives a cascading [multigrid algorithm](#) for fast computation of the [Fiedler vector](#) of a graph [Laplacian](#), namely, the [eigenvector](#) corresponding to the second smallest eigenvalue. The paper gave Urschel an [Erdős number](#) of 4.

Holding bachelor’s and master’s degrees from Penn State (both with 4.0 averages), Urschel was selected 175th overall in the fifth round of the [2014 NFL Draft](#) by the [Baltimore Ravens](#), and signed a deal worth \$2.364 million.

During his rookie year, he started writing a column for [The Player’s Tribune](#). His first article looks at the distribution of college football players’ majors. His second article, “Why I Still Play Football” was in response to the recent retirement of Chris Borland, a former 49er who quit the game due to the potential risks of brain injury. Urschel expresses that he envies Borland, but is unable to quit the NFL because of his deep passion for the game. Also passionate about reading math, doing research, and playing chess, he foresees a bright future as a mathematician after his NFL career does end.

Count the Triangles

