

## UNDERGRADUATE MATH SEMINAR

In the coming week, there will be two, yes two(!), math seminars. Please note the day and time of these seminars as they are not in the “usual” Thursday time slot. Look for the posters around Bailey Hall with speaker, title and abstract information.

**DATE:** **Wednesday, January 29**

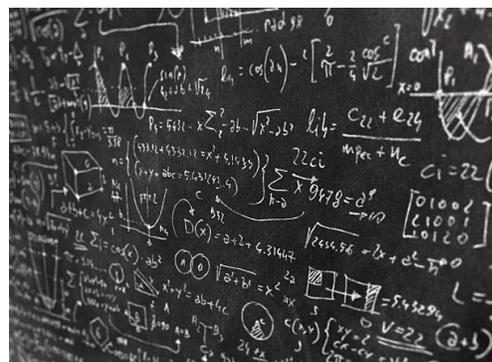
**Time &** **12:30 pm** – Pizza and drinks in Bailey 204

**Location:** **12:55 pm** – Seminar in **Bailey 207**

**DATE:** **Friday, January 31**

**Time &** **4:00 pm** – light refreshments in Bailey 204

**Location:** **4:15 pm** – Seminar in **Bailey 207**



## Math Contests Aplenty!

In the past couple of newsletters, we have announced a couple upcoming math contests offered at Union. And now we have another one to announce! Information about all three is presented below.

- The 14<sup>th</sup> annual **University of Rochester Math Olympiad** will be held on **Saturday, February 8** from **9:30am to 12:30pm**. This contest consists of four proof-based problems to be solved over the three-hour time period with CASH prizes to the top three performers! For information about practice sessions, and to participate in this Olympiad, please contact **Professor Ehssan Khanmohammadi** ([kahnmohe@union.edu](mailto:kahnmohe@union.edu), in Bailey 108B).
- The 34<sup>th</sup> annual Mathematical Contest in Modeling (MCM) will be held **Thursday, February 13 at 5pm to Monday, February 17 at 8pm**. This is a *100 hour* international contest that challenges teams of three students to clarify, analyze, and propose solutions to open-ended real world problems. Past problems have been about stunt-person landing, water strategy, how to efficiently load passengers on airplanes, eradicating Ebola, cooperation between self-driving cars, and many others. Visit <https://www.comap.com/undergraduate/contests/> for more information and past contest problems. **Professor Jue Wang** ([wangj@union.edu](mailto:wangj@union.edu), Bailey 208C) is coordinating Union’s participation in the MCM. Contact her for more information.
- The Rochester Institute of Technology (RIT) is organizing its 7<sup>th</sup> annual RIT Mathematics Competition, to be held **Saturday, March 28<sup>th</sup>** from **9:30am to 12:30pm**. This is another four-problem competition that is a blend of computations and proofs. To see past exam problems, go to the College Competition page of [https://people.rit.edu/smsmathprob/College\\_comp.html](https://people.rit.edu/smsmathprob/College_comp.html). See **Professor Jue Wang** ([wangj@union.edu](mailto:wangj@union.edu), Bailey 208C) if you are interested in this one.

## Summer Opportunities – Turn the Page → →→ →→ →→ →→ →→ →→

Last week’s newsletter discussed Research Experiences for Undergraduates (REUs) in math. To read about a Teaching Experience for Undergraduates (TEUs) in math, and more, turn the page!

NOTE: Recent past issues of the math newsletter are available on the math department’s homepage, in the “Activities” section, or directly here: <https://www.union.edu/mathematics/newsletters>

## Teaching Experience for Undergraduates (TEU) this Summer

Thinking about teaching high school math? Union College is part of a network of about 60 liberal arts colleges and universities whose students are allowed to apply for a relatively new summer "Teaching Experience for Undergraduates" (TEU) program at Brown University. Students selected for this program

- Earn a generous stipend (\$2500-\$3500) as well as room and board, plus travel expenses to and from Brown University,
- Take a 60-hour course in mathematics pedagogy, and
- Apply what they are learning to teaching urban high school students under the supervision of a master teacher-mentor.

After the TEU program, participants undertake a leadership project at their home institution and have the opportunity to travel to a conference to give a presentation about their experience.

This is a wonderful opportunity for students considering becoming a math teacher. For more information about the program and how to apply, go to the website [TEU.vassar.edu](http://TEU.vassar.edu). The application deadline is **February 28**, and the program is tentatively scheduled to start on June 15.

Interested in **science education** but perhaps not math education? The same TEU organization is running a parallel program in science hosted at Trinity College in Hartford, CT! Information and application materials are available at the same website [TEU.vassar.edu](http://TEU.vassar.edu). The application deadline is **February 28**, and the program is tentatively scheduled to start on June 1.

## Employment Opportunities with the AOP Summer Program

Every summer, there are two math Tutor/Community Advisor (TCA) positions available in Union's Academic Opportunity Program's (AOP) summer program, one for precalculus and one for calculus. This is a five-week program, July 5 - August 8, with staff orientation June 28 – July 3. The TCAs attend and work with the students to help them succeed. The TCAs live in the dorm with the students and provide office hours, review classes and individual tutoring in the evenings.

In addition to math, TCA positions are available in English, Political Science, Biology, and Engineering. Further, one candidate will be hired as the Head Tutor/Community Advisor, who will be provided compensation for additional assigned responsibilities.

The application, and more details about the positions, can be found online:

<https://jobs.union.edu/cw/en-us/job/492718/aop-summer-program-tutorcommunity-advisors>

Act soon! The application **deadline is February 3**. Questions? See Laurabelle Zagada in the AOP office in Olin.

## Problem of the Newsletter – January 27, 2020

**Last week's problem:** A solution to last week's problem has been posted at the newsletter sites in Bailey Hall.

**This week's problem:** Let  $n$  be an *integer*. Determine, with proof, if  $2^n + 3^n$  is ever the square of a rational number.

**Professor Friedman** ([friedmap@union.edu](mailto:friedmap@union.edu)) will accept solutions until noon on Friday, January 31.