Department of Mathematics

Thank You!

As the fall term is coming to a close, in this final math newsletter of the term, we would like to extend our gratitude to some people who have made some noteworthy contributions to Union's math community this term.

- **THANK YOU, Professor Brenda Johnson,** for organizing a wonderful Undergraduate Math Seminar series this fall term!
- **THANK YOU, Professor George Todd,** for coordinating Union's participation in upcoming Putnam Exam and for organizing the many practice sessions to help participants get ready.
- THANK YOU, Calculus Help Center tutors, Tom Harrison, Paige Isser, Jerry Ji, Celine Nguyen, Kallan Piconi, and Edwina Rasmussen. You have helped many students this term. The Math Department and its students truly appreciate your efforts.

NOTE: The last night of the CHC this term is the last day of classes, Tuesday, November 13.

Some Good (Math!) Twitter Follows

Interested in getting some math news via Twitter? Do you want some more, fun, math problems to work on? Here are a couple people you might want to follow:

- Grant Sanderson (@3blue1brown). Sanderson maintains a website and a YouTube channel (all findable searching for "3blue1brown") on which he posts some really well-done, and interesting videos on math. He usually tweets about them when they become available.
- James Tanton (@jamestanton) [Adapted his wiki page] James Tanton is a mathematician who earned his PhD from Princeton in 1994. He is an award winning teacher, a scholar at the Mathematical Association of America, author of over ten books on mathematics, curriculum, and education, and creator of videos on mathematics on YouTube. On Twitter, Tanton is an avid promoter of math education.

Problem of the Newsletter – November 7, 2018

Last week's problem: Congratulations to Khoa Ngo The and Hoang Tran for submitting correct answers to last week's problem, and to everyone who contributed solutions to the Problem of the Newsletter this term – great job! As for last week's problem, a sample solution has been posted on the bulletin boards around Bailey Hall.

This week's problem: As a study break, have fun working on the following:

An integer $a_0 > 1$ is called **fantabulous** if the sequence a_0, a_1, a_2, \ldots defined by

$$a_{n+1} = \begin{cases} \sqrt{a_n} & \text{if } \sqrt{a_n} \text{ is an integer,} \\ a_n + 3 & \text{otherwise} \end{cases}$$

is such that there exists a number A for which $a_n = A$ for infinitely many values of n. Determine the fantabulous integers.

Professor Friedman (friedmap@union.edu) will accept solutions through December 31, 2018

Turn the page to see the schedule of math finals.

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Fall 2018: Math Final Exam Schedule

| Course # | Course Name | Professor | Room | Day | Date | Time |
|-------------|--------------------------------|---------------------------|----------|-----|-------|---------------|
| MTH*100*01 | Calculus with Precalc 1 | Todd, G. | OLIN 115 | Mon | 11/19 | 8:30-10:30 AM |
| MTH*100*02 | Calculus with Precalc 1 | Rosenthal, K. | BAIL 106 | Thu | 11/15 | 8:30-10:30 AM |
| MTH*100*03 | Calculus with Precalc 1 | Todd, G. | OLIN 115 | Mon | 11/19 | 8:30-10:30 AM |
| MTH*110*01 | Calculus 1 | Jauregui, J. | OLIN 115 | Tue | 11/20 | 2:30-4:30 PM |
| MTH*110*02 | Calculus 1 | Jauregui, J. | OLIN 115 | Tue | 11/20 | 2:30-4:30 PM |
| MTH*110*03 | Calculus 1 | Khatami, L. | VART 204 | Fri | 11/16 | 2:30-4:30 PM |
| MTH*110*04 | Calculus 1 | Khatami, L. | VART 204 | Fri | 11/16 | 2:30-4:30 PM |
| MTH*110*05 | Calculus 1 | Zwicker, W. | BAIL 201 | Fri | 11/16 | 8:30-10:30 AM |
| MTH*110*06 | Calculus 1 | Hatley, J. | BAIL 100 | Mon | 11/19 | 11:30-1:30 PM |
| MTH*113*01 | Acc Single-Variable Calculus | Klangwang, J. | OLIN 115 | Mon | 11/19 | 2:30-4:30 PM |
| MTH*113*02 | Acc Single-Variable Calculus | Klangwang, J. | OLIN 115 | Mon | 11/19 | 2:30-4:30 PM |
| MTH*113*03 | Acc Single-Variable Calculus | Khanmohammadi | VART 204 | Mon | 11/19 | 11:30-1:30 PM |
| MTH*113*04 | Acc Single-Variable Calculus | Khanmohammadi | VART 204 | Mon | 11/19 | 11:30-1:30 PM |
| MTH*115*01 | Calculus 3 | Rosenthal, K. | BAIL 106 | Tue | 11/20 | 8:30-10:30 AM |
| MTH*115H*01 | Enriched Diff Vector Calculus | Wang, J. | BAIL 102 | Fri | 11/16 | 8:30-10:30 AM |
| MTH*117*01 | Calculus 4: Integral Vector | Johnson, B. | BAIL 100 | Fri | 11/16 | 8:30-10:30 AM |
| MTH*130*01 | Ordinary Differential Equation | Friedman, P. | BAIL 100 | Tue | 11/20 | 8:30-10:30 AM |
| MTH*199*01 | Intro to Logic & Set Theory | Tønnesen- Friedman, C. | BAIL 207 | Thu | 11/15 | 6:00-8:00 PM |
| MTH*199*02 | Intro to Logic & Set Theory | Friedman, P. | BAIL 207 | Thu | 11/15 | 6:00-8:00 PM |
| MTH*219*01 | Topics in Discrete Math | Johnson, B. | BAIL 102 | Thu | 11/15 | 8:30-10:30 AM |
| MTH*248*01 | Intermediate Topics in Math | Khatami, L. | BAIL 201 | Fri | 11/16 | 11:30-1:30 PM |
| MTH*336*01 | Real Variable Theory | Hatley, J. | BAIL 104 | Mon | 11/19 | 8:30-10:30 AM |
| STA*104*01 | Introduction to Statistics | Oppenlander, J. | BAIL 100 | Tue | 11/20 | 11:30-1:30 PM |



GOOD LUCK ON YOUR FINALS!

