UNDERGRADUATE MATH SEMINAR

The next math seminar will be

DATE: <mark>THURSDAY, April 6</mark>

Time &   **12:30 –** Refreshments in **Bailey 204**

Location: **12:50 – 1:45** Seminar in **Bailey 207**

Title: Egyptian Fractions

Abstract: A large part of the famous Rhind Papyrus (pictured) from ancient Egypt contains a table that decomposes each of the fractions, 2/5, 2/7, …, 2/101 as a sum of distinct *unit fractions*, that is, as a sum of distinct fractions each having 1 as its numerator. For example,

$$\frac{2}{85} = \frac{1}{51} + \frac{1}{255}$$

Professor Paul Friedman

Consequently, unit fractions are now often called **Egyptian fractions**. In this talk, we will explore the decomposition of positive rational numbers m/n <1 as a sum of Egyptian fractions, touching on questions such as: is such a decomposition always possible? If so, how might we do so? Are there any preferred decompositions? How might we find these? Time permitting, we will mention some open questions concerning Egyptian fraction decompositions.

HRUMC – a Fantastic Day of Math

A contingent of 11 students and four math faculty spent this past Saturday, April 1, at the Hudson River Undergraduate Mathematics Conference, hosted by Mount Holyoke College. There were over 80 math session talks at the conference for the over 300 conference registrants to choose to attend, including four talks by Union students:

- **Jordan An**, "Some Different Ways to Prove the Irrationality of $\sqrt{2}$"
- **Shizhe Li**, "Bipartite Intrinsically Knotted Graphs with 21 Edges"
- **Aidan McAuliffe**, "Isoperimetric Inequality"
- **Mayah Teplitskiy**, "Polynomials in $F_p[X]$ Which Commute Under Composition".

In addition to the individual session talks, there was a fascinating keynote address by **Professor Rosa Orellana** from **Dartmouth College** about some of the work she and her undergraduate students have been doing in graph theory to study the chromatic symmetric function and coloring trees.
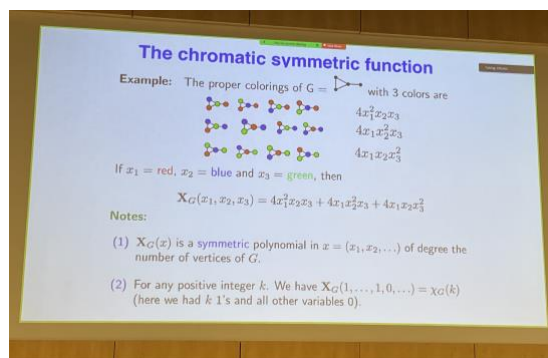
Calculus Help Center: Spring Term Hours
Sunday, Tuesday, and Thursday: 7:30-10:00pm
Sorum House Seminar Room