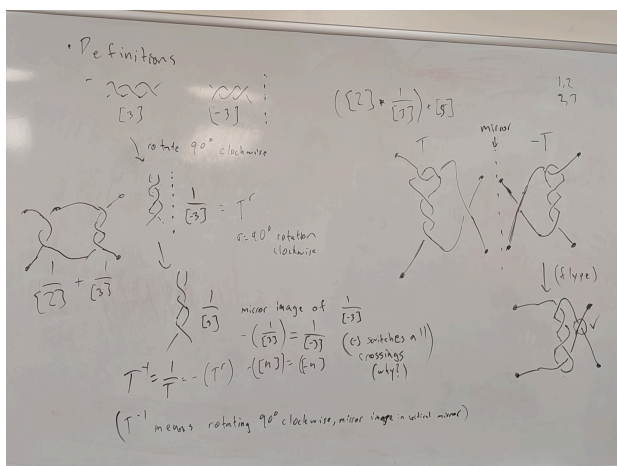
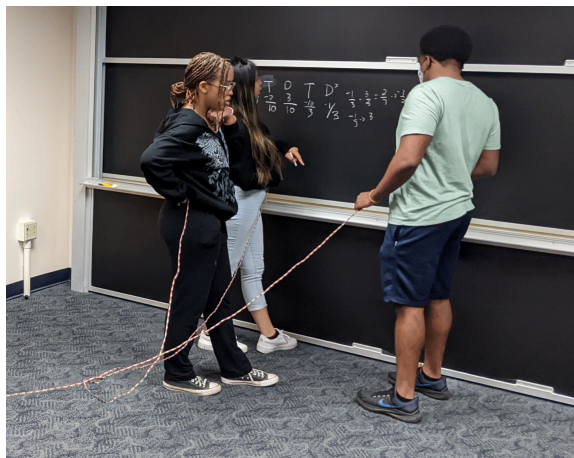


Wrangles and Tangles Math Circle — Summer 2026

John Conway created the Rational Tangles dance as a way to make progress on unsolved questions in Knot Theory. Four dancers hold two ropes. As they Do-si-do and Turn 'em Round, the ropes become intricately tangled. However, no matter how complicated the tangle gets, it is possible to completely describe the configuration using a fraction. In fact, we can actually untangle the ropes without seeing them simply by performing simple computations with fractions.



We will take a deep dive into the proof behind why the tangle dance works. Along the way, we will explore concepts from knot theory, continued fraction expansions, linear fractional transformations and the modular group, and much more.

In addition to exploring Rational Tangles, we will also tackle some Math Wrangle problems together. Students will learn a wide range of proof techniques and will become more comfortable wielding algebra. Participants should have long attention spans and be interested in learning deep mathematics.

- Free of charge
- To register, contact Amanda Serenevy
amanda@riverbendmath.org 574-339-9111
- Location: IUSB Northside Hall 310
- Times: Mondays – Thursdays 9 a.m. to noon
- June 15, 16, 17, 18, 22, 23, 24, 25, 29, 30
- July 1, 2, 6, 7, 8, 9

