Fall 2025 Outreach Team

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Introduction

MEGL Outreach is dedicated to showing K–12 students the creative, fun, and surprising side of mathematics. Through hands-on activities, we spark curiosity, build confidence, and reveal how math connects to patterns, puzzles, and the world around us.

Activities We Presented

- You Can Count on Monsters (Prime Factorization)
- Really BIG Numbers (Types of Growth)
- Irrational Thinking (Number Systems)
- The Shapes that Make Us (Geometry)
- Playground of the Infinite (Limits)

Other Activities

- Shapes and Tiling (Geometry)
- Bubbles (Optimization)
- Hyperbolic Crochet (Geometry)
- True Lies in Math (Logic & Alternative Number Systems)
- Quantum Computing (Algorithms)

Accomplishments!

- Reached 450+ K–12 students
- Ran 18 sessions with FCPS schools + GMU events
- Expanded training and leadership within the team
- Improved activity materials and logistics

Training Spotlight:

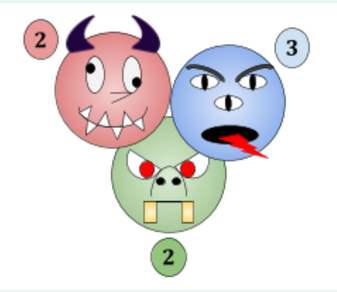
This semester we launched weekly outreach training seminars open to any MEGL students interested in learning and helping with activities!

Create Your Own Monster

Every monster represents a number and each of its features shows the **prime factors** that build that number. Bigger numbers create more unique creatures!

Try it out:

1. Choose a number.
2. Break it into its prime factors. (e.g., $12 = 2 \times 2 \times 3$)
3. For each prime, create a monster head that represents your number.
   Alternative: Make one monster and assign a body part to each prime:
   2 = eyes 3 = horns 5 = teeth (etc.)
4. Draw your monster using those features!



No two numbers have the same monster — that's the power of prime factorization!

Highlights from Outreach