

Outreach Opportunities in Math

Joshua Goldstein

Texas A&M University

September 12, 2021

Acknowledgements

Slides based on (pre-covid) presentation by Ayo Adeniran and Ola Sobieska.

Agenda

- Why is outreach important?

Agenda

- Why is outreach important?
- Why should you do outreach activities?

Agenda

- Why is outreach important?
- Why should you do outreach activities?
- Outreach at TAMU

Agenda

- Why is outreach important?
- Why should you do outreach activities?
- Outreach at TAMU
- Questions

Importance of Outreach Activities

Importance of Outreach Activities

Consider the following scenario. A mathematician walks into a party:

Importance of Outreach Activities

Consider the following scenario. A mathematician walks into a party:

New Acquaintance: “So what do you do for a living?”

You: “I’m in grad school.”

New Acquaintance: “Oh, what are you studying?”

You: “Math.”

New Acquaintance:

Importance of Outreach Activities

Consider the following scenario. A mathematician walks into a party:

New Acquaintance: “So what do you do for a living?”

You: “I’m in grad school.”

New Acquaintance: “Oh, what are you studying?”

You: “Math.”

New Acquaintance:

- Math?! Ugh!
- Good for you. I was never good at math.
- Oh, I hate math. I had a terrible teacher...
- So, like, what do you do with that? Accounting?

Importance of Outreach Activities

Outreach programs help address some of these responses. We want math to be...

Importance of Outreach Activities

Outreach programs help address some of these responses. We want math to be...

- Approachable

Importance of Outreach Activities

Outreach programs help address some of these responses. We want math to be...

- Approachable
- Understandable

Importance of Outreach Activities

Outreach programs help address some of these responses. We want math to be...

- Approachable
- Understandable
- More human

Why should you do outreach?

Why should you do outreach?

- Social Responsibility

Why should you do outreach?

- Social Responsibility
- Experience for academic jobs

Why should you do outreach?

- Social Responsibility
- Experience for academic jobs
- Networking (or simply breaking out of the Zoom bubble)

Why should you do outreach?

- Social Responsibility
- Experience for academic jobs
- Networking (or simply breaking out of the Zoom bubble)
- Practice for teaching

Why should you do outreach?

- Social Responsibility
- Experience for academic jobs
- Networking (or simply breaking out of the Zoom bubble)
- Practice for teaching
- Rediscover mathematics

Why should you do outreach?

- Social Responsibility
- Experience for academic jobs
- Networking (or simply breaking out of the Zoom bubble)
- Practice for teaching
- Rediscover mathematics
- Required for membership in AMS and SIAM chapters

Outreach Activities at TAMU

Outreach Activities at TAMU

- Math Circle (Saturdays, year round)
- High School Math Contest (Sat., Nov. 13, 2021)
- Derivative Bee (Fall 2021)
- Integral Bee (Spring 2022)
- Math/Stat Fair (Sat., Feb. 26, 2022)
- Physics & Engineering Festival (Sat., April 2, 2022)
- SEE-Math (Summer 2022)
- SMaRT Camp (Summer 2022)

- Meets most Saturdays (online)
- Sessions at 12:00 - 1:30, 1:45 - 3:15, 3:30 - 5:00 pm
- **Discovery Learning:** Inquiry-based learning, students discover mathematics concepts through games/activities
- **Problem Solving:** Focus on competition style math skills/techniques and concepts
- Volunteers help the instructor manage individual breakout rooms
- Volunteers can attend as often as their schedule allows
- Small book/travel allowance for graduate student volunteers
- Contact Joshua Goldstein (jgoldstein345@tamu.edu) for more information

Derivative & Integral Bee

- Cancelled last academic year
- Rumor has it that pizza was provided in former years
- If it is happening, you will most assuredly receive an email about it
- Contact: David Manuel (dmanuel@tamu.edu)

High School Math Contest

- Currently scheduled for Sat., Nov. 13, 2021 (in person)
- Volunteers will grade exams
- *Food provided*
- Contact: Oksana Shatalov (shatalov@math.tamu.edu) and Cara Starmer (cara@math.tamu.edu)

- Currently scheduled for Sat., February 26, 2022
- Last year was online, but normally in person
- Volunteers asked to help with check-in, supervise Math Game room, help grade for the Math Contest, supervise the Math Art Room, serve pizza
- If virtual: volunteers will help manage individual breakout rooms on Zoom
- *Food provided*
- Contact: Tamara Carter (tcarter@tamu.edu)

- Scheduled for Saturday, April 2, 2022 (all day)
- Volunteers asked to supervise the Math Booth: Play games with kids, help them solve puzzles, run demonstrations (if in person)
- *Lunch provided*
- For more information: <https://physicsfestival.tamu.edu>

- Summer Educational Enrichment in Math
- Two-week summer camp for gifted and honors level math students entering 6th, 7th or 8th grades
- Volunteers asked to help run activities
- Summer 2020 and 2021 were virtual
- Contact: Phil Yasskin (yasskin@tamu.edu) or David Manuel (dmanuel@tamu.edu)

Common Excuses

Common Excuses

- “I’m so busy! I don’t have time!”

Common Excuses

- “I’m so busy! I don’t have time!”
 - Most outreach activities are relatively small time commitments (2-3 hours)

Common Excuses

- “I’m so busy! I don’t have time!”
 - Most outreach activities are relatively small time commitments (2-3 hours)
 - Grad school only gets busier...

Common Excuses

- “I’m so busy! I don’t have time!”
 - Most outreach activities are relatively small time commitments (2-3 hours)
 - Grad school only gets busier...
- “I don’t know how to interact with kids/people!”

Common Excuses

- “I’m so busy! I don’t have time!”
 - Most outreach activities are relatively small time commitments (2-3 hours)
 - Grad school only gets busier...
- “I don’t know how to interact with kids/people!”
 - Great practice for socializing

Common Excuses

- “I’m so busy! I don’t have time!”
 - Most outreach activities are relatively small time commitments (2-3 hours)
 - Grad school only gets busier...
- “I don’t know how to interact with kids/people!”
 - Great practice for socializing
 - Most of these kids are interested in math already

Common Excuses

- “I’m so busy! I don’t have time!”
 - Most outreach activities are relatively small time commitments (2-3 hours)
 - Grad school only gets busier...
- “I don’t know how to interact with kids/people!”
 - Great practice for socializing
 - Most of these kids are interested in math already
- “It is so difficult to get to school on the weekends!”

Common Excuses

- “I’m so busy! I don’t have time!”
 - Most outreach activities are relatively small time commitments (2-3 hours)
 - Grad school only gets busier...
- “I don’t know how to interact with kids/people!”
 - Great practice for socializing
 - Most of these kids are interested in math already
- “It is so difficult to get to school on the weekends!”
 - Free parking in lots 50 and 51 (by Rugby/Polo fields)

Common Excuses

- “I’m so busy! I don’t have time!”
 - Most outreach activities are relatively small time commitments (2-3 hours)
 - Grad school only gets busier...
- “I don’t know how to interact with kids/people!”
 - Great practice for socializing
 - Most of these kids are interested in math already
- “It is so difficult to get to school on the weekends!”
 - Free parking in lots 50 and 51 (by Rugby/Polo fields)
 - Carpool with friends!

Common Excuses

- “I’m so busy! I don’t have time!”
 - Most outreach activities are relatively small time commitments (2-3 hours)
 - Grad school only gets busier...
- “I don’t know how to interact with kids/people!”
 - Great practice for socializing
 - Most of these kids are interested in math already
- “It is so difficult to get to school on the weekends!”
 - Free parking in lots 50 and 51 (by Rugby/Polo fields)
 - Carpool with friends!
- “I don’t know who to contact / how to sign up!”

Common Excuses

- “I’m so busy! I don’t have time!”
 - Most outreach activities are relatively small time commitments (2-3 hours)
 - Grad school only gets busier...
- “I don’t know how to interact with kids/people!”
 - Great practice for socializing
 - Most of these kids are interested in math already
- “It is so difficult to get to school on the weekends!”
 - Free parking in lots 50 and 51 (by Rugby/Polo fields)
 - Carpool with friends!
- “I don’t know who to contact / how to sign up!”
 - It is a friendly department, if you don’t know something just ask!

Thank you!

- Thanks for listening!
- More information about outreach activities can be found at <https://www.math.tamu.edu/outreach/programs/>