Girls Excel in Math (GEM) Calgary

Description

Girls Excel in Math (GEM) Calgary is a Saturday enrichment program for grades 6 - 8 students who identify as girls. Students will have fun exploring mathematical topics that they would not normally see in the classroom.

Students will begin in a large lecture hall with a session led by Lauren DeDieu. They will then split into a smaller classroom with other students from their school. This smaller session will be led by a teacher from their school, with support from undergraduate/graduate student volunteers.

2022/2023 Dates:

GEM will take place at the University of Calgary from 9:30am – 12pm on the following dates:

- Saturday, Oct. 15th: Fractals
- Saturday, Dec. 3rd: Prisoner’s Dilemma
- Saturday, Feb. 11th: Origami
- Saturday, Mar. 18th: Eulerian Graphs

Who should attend?

Any student who identifies as a girl who is in grade 6, 7, or 8 who wants to have fun exploring some interesting mathematical topics with their teacher and schoolmates!

How much does GEM cost?

GEM is free and t-shirts will be provided to all participants! We ask that participants wear their t-shirts to the four GEM sessions.

What supplies should students bring?

Students should bring a pencil and paper. Light snacks will be provided, but students may want to bring their own snack if they have allergies.
Information for Teachers

Registration:

Teachers can register their school for GEM by uploading a list of their students’ names and t-shirt sizes to the following Google Form:

- Please register your school by **Monday, Sept. 19th** here: [https://forms.gle/qkKMepY7WdA1s92x8](https://forms.gle/qkKMepY7WdA1s92x8)

Please put your students’ names/grades/t-shirt sizes in an excel sheet and upload it to the Google Form; please also include your preferred t-shirt size (and the t-shirt size of any other teacher volunteers from your school) in the excel sheet.

Note that we are asking for a list of students and their t-shirt sizes by this date, because the t-shirt shop needs to place the order by that date so that we receive the t-shirts on time.

Time Commitment for Teachers:

Participating teachers must be available to lead activities at the four Saturday events and register students who are interested in participating. (*Note that some schools may choose to split the dates between multiple teachers.*)

The curriculum will be provided to you ahead of time. We will match you with an undergraduate/graduate math student volunteer. Their role is entirely up to you (*you can ask them to take the lead, ask them to be on hand to help out, etc.*). Depending on enrollment, we may match you with another teacher/class (*if you are open to it*).

There will also be four optional teacher sessions that will occur on the Tuesdays before GEM events from 4:30 – 5:15pm via Zoom:

- Tuesday, Oct. 11th
- Tuesday, Nov. 29th
- Tuesday, Feb. 7th
- Tuesday, Mar. 14th

These teacher sessions will give us a chance to meet each other, go through the curriculum together, and make a plan for what everyone’s role will be. Or, if you would prefer to connect with your volunteer at a different time, that’s fine too!
Why are we asking for teachers to recruit students and lead activities?

Teachers know their own students better than anyone! A lot of the curricula we will be supplying has already been used and tested in several different programs and has been well-liked by both students and teachers. However, there can be a fair amount of variance between students and school. As such, we think that it is important for students to be taught by teachers from their own school, so that teachers can modify the curricula as they see fit to provide the best possible experience for their students. We have also found that students generally feel more comfortable if the activity is led by one of their teachers and are more likely to attend an event if they are invited by someone they know.

Desired Outcomes

- Stimulate girls' interest in mathematics by having fun participating in collaborative, non-competitive mathematical activities.
- Encourage participants to think of themselves as part of the mathematical community.
- Encourage female students to take challenging math courses as they transition from junior high to high school.
-Expose students to female role models in mathematics.
- By collaborating with teachers, we hope to build lasting connections between the Department of Mathematics & Statistics and local junior high schools.