Math Day 2027 at Murray State University
February 3, 2027 9:15am-1:25pm
Contest Rules and General Information

I. Registration

(i) The deadline for initial registration is Thursday, January 14th at 12 pm via the Google form found at https://forms.gle/nneE9dDkCXau3Up98.

(ii) Given space constraints, priority registration will be given to Kentucky high schools in our region.

(iii) Students may be allowed to participate if their information is not provided by January 14th; however, there is no guarantee that such students will receive a t-shirt.

(iv) If a student who is registered by January 14th cannot participate, another student will be allowed to substitute. Please email msu.mathday@murraystate.edu with changes.

(v) Each school is allowed to bring a maximum of 20 students.

(vi) If your group registration is not completed by 12pm on Friday, January 29th then your school's registration is forfeited, and you will not participate in Math Day 2027.

II. Individual Exams

(i) There will be two exams administered concurrently, beginning at 9:35 am.

(ii) Each exam consists of thirty multiple choice questions. Students will be given 50 minutes to complete the exam.

(iii) The Lower Level Exam is geared toward freshman and sophomore students. The content will consist of problems of varying difficulty from Algebra I, Algebra II, Geometry, and Mathematical Reasoning.

(iv) The Upper Level Exam is geared toward junior and senior students. The content will consist of problems of varying difficulty from Trigonometry, Calculus, Probability, and Mathematical Reasoning.

(v) The use of calculators will not be allowed during the exam; however, students will be given pencil and paper.

(vi) The grading criteria for the exams is as follows: $+1$ point for a correct answer, $-\frac{1}{4}$ point for an incorrect answer, and 0 points for no answer.

(vii) Junior and senior students will be allowed to take the Lower Level Exam; however, they are ineligible for individual prizes in this category and their scores will not count toward school awards.

III. Team Competition

(i) Each school will divide its participants into teams of 3–4 students. Each team must be (roughly) composed of an equal number of students taking the Upper Level Exam and students taking the Lower Level Exam.

(ii) Each team will have 45 minutes to complete as many math challenges as possible.

(iii) In order to coordinate all participants, one student will be designated as the runner for the team. This student will be in charge of picking up the challenge from the challenge tables and bringing it to the team's table to work on.

(iv) The use of any external source will immediately disqualify the group. This includes, but not limited to, a calculator, phone, laptop, or any person that is not part of the team.

IV. Awards

(i) The three groups with the highest scores in the group competition will earn awards.

(ii) The five students with the highest scores for each level of exam will earn awards.

(iii) The three juniors and three seniors with the highest scores on the Upper Level Exam will be given scholarship letters to Murray State University.

(iv) There will be one award for the school with the best performance. A school must have at least three students participating in each exam in order to be eligible for this award and those teams counted for points in the group competition must include at least one student taking the Lower Level Exam and one taking the Upper Level Exam. Points will be distributed as set out below.

Upper Exam: Each individual student performance accumulates points for their school. Points are given out for the following:

- 1st place (10 points)
- 2nd place (8 points)
- 3rd place (6 points)
- 4th place (4 points)
- 5th place (2 points)

One school may accumulate a maximum of 30 points in this event.

Lower Exam: Points are awarded exactly the same as in the Upper Exam.

Group Competition: In order to be eligible for points from this event, a school must have a minimum of two groups participating. Each school's ranking will be determined by taking the mean score from the best two groups participating. Points are given out for the following:

- 1st place (30 points)
- 2nd place (24 points)
- 3rd place (18 points)
- 4th place (12 points)
- 5th place (6 points)

One school may accumulate a maximum of 30 points in this event.

V. **Miscellaneous**

(i) All activities will be held on the 3rd floor of **Faculty Hall** and in **Lovett Auditorium** (Buildings 41 & 40 on the Murray State Campus map, respectively).

(ii) Check in will begin at 8:15 am and we will begin the day promptly at 9:15 am with a welcome from Dr. Don Robertson, Vice President for Student Affairs & Enrollment Management of Murray State University.

(iii) In addition to the contest, there will be a MSU alumnus talk focusing on the pursuit a mathematics degree and the usefulness of mathematics in a professional career. We encourage students and teachers to have questions prepared for this component of Math Day.

(iv) When completing the registration form, make sure to indicate any possible dietary restrictions.

(v) During the registration process, please indicate the correct t-shirt size for each student. No additional t-shirts will be available the day of the competition.

(vi) If you have any additional questions please email msu.mathday@murraystate.edu.