

Colorado Mountain College – Featuring March Mathness, a High School Math Challenge

Has your institution considered hosting a high school math competition? Discover how easy it can be with a behind the scenes look at all that it entails. From acquiring funding, to developing relationships with teachers, recruiting volunteers, and running the competition, this session has everything you need.

Why host a high school competition?

A competition is a great way to promote your college in the community. It allows for relationships with local schools and is an avenue to bring potential students to the college and hopefully encourage some to attend after they complete high school.

Step 1: Acquiring Funding

To run a competition that students want to attend, it takes money. My funding comes mostly through donations; however, Colorado Mountain College has always been willing to pitch in through auxiliary funds or through math department funds because they see the competition as a way to promote the college. Here is a rough estimate of our costs for approximately 50-100 students:



- scholarship prizes: \$350 (This has been donated by a local engineering firm each year.)
- graphing calculators: \$300 (Texas Instruments has donated some of these each year so far; one is usually bought with math budget funds.)
- other school swag prizes: \$200 (auxiliary fund)
- food for participants, teachers, and volunteers: \$500 (auxiliary fund)
- total: \$1350

*All our funding for the next three years will come from a grant the department was awarded to promote program growth at the college.

Step 2: Recruiting and Setting a Date

It is imperative to build relationships with local high schools for participation in the event. I have been able to establish good relationships with one teacher from each of the five local high schools and they have become my point persons each year when organizing the event. Reach out early and often. I first contact them in November for the event in March and I continue to touch base with them six or seven additional times before the event. It is also important to get a date on everyone's calendar early.

It is important to set clear guidelines with high schools regarding number of students if there is a cap, choosing team names that are appropriate, bringing students who are motivated, level of student if you would like to limit this, etc.



Volunteer recruitment is essential to the success of the competition. I usually have anywhere from 15-25 volunteers to cover everything that needs to happen on competition day. My students are a great resource for this.

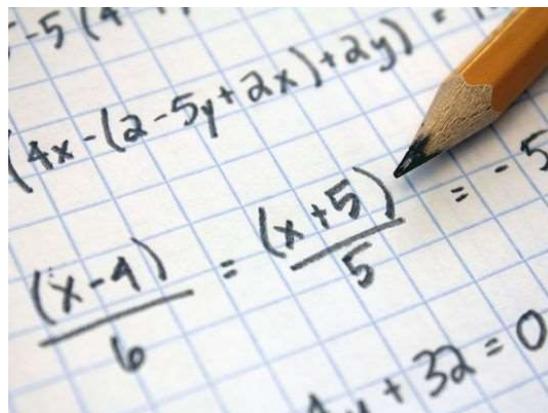


Step 3: Hitting the Streets

Local businesses are usually willing to donate prizes if you are willing to ask. Prepare a letter explaining the event. You can also create a flyer. Make sure you have your tax donation information included and hit the streets. The more prizes you get, the more intriguing the event is for students. It is important to make note of the names of the individuals who donated, they will be likely to give again in the future. Most of these prizes are door prizes. The big prizes have come from asking larger companies for donation, i.e. graphing calculators and scholarship money. Don't forget to send thank you notes!

Step 4: Creating Competition Materials

My competition consists of two tests. The first test is an individual exam that is multiple choice. This exam is created using existing AMATYC exams. The second test is a team test that is free response. This exam is created using Student Math League materials. The first test is multiple choice, so it can quickly be graded and recorded while students are taking the second exam. I always have an easy tie-breaker for ties, which will inevitably happen. The team test is graded quickly by all volunteers while students are eating. Ties on the team test are determined by difficulty of the problem.



Step 5: Competition Day Logistics

Here are a few things you will need to keep things running smoothly on competition day:

- sign-in tables with names-tags that include student name, school, team name, and testing room
- schedule of the day's events sent early to high school teachers
- volunteer assignments for check-in, proctoring, grading, food set-up, runners, clean-up...
- test room packets which include: tests, scantrons, pencils, printed proctor instructions, list of students/teams
- signage for ease of finding testing rooms, etc.
- food including snacks between tests and possibly lunch
- awards ceremony



If you have any additional questions for me, please feel free to contact me.

Stacy Yarnell

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SAMPLE LETTER TO DONORS

January 26, 2018

TO: Local Businesses

SUBJECT: Math Competition Prize Donation

Local Business Owner/Manager,

I am writing you to ask if you and your business would be willing to donate your product for Colorado Mountain College, Vail Valley Campus' 3rd Annual High School Mathematics Competition due to be held on March 6, 2018. During the event, we plan to use the donations for contest prizes. There will be two different contests, a team test and an individual student test, each hopefully with first, second and third place prizes. We would like to have door prizes available as well. We are expecting five high schools in the valley with up to 150 student participants this year so any donation would be greatly appreciated and accepted. If you choose to do so, your donation would greatly benefit education and help promote learning here at Colorado Mountain College! If you are willing to donate your product, we plan to recognize you as a contributor in the schedule of events flyers that will be distributed throughout the college prior to the event. If you have any questions, please feel free to contact me. Thank you so much for your time and consideration.

Sincerely,



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SAMPLE SCHEDULE

3rd Annual Colorado Mountain College – Vail Valley High School Math Challenge

Tuesday, March 6, 2018

- 10:30-11:00 Student check-in upstairs in room 215
- 11:00-11:15 Students will find their testing rooms (250, 258, and 259). Rooms can be found on student nametags.
- 11:15-noon Individual testing – Students will need to bring a pencil and a calculator. Calculators will not be provided to those who do not bring their own. I will have a few extra pencils in the room, however, please encourage students to bring their own.
- noon-12:30 Lunch buffet outside of room 250.
- 12:30-12:45 Students will return to their testing rooms.
- 12:45-1:30 Team testing - Students will need to bring a writing utensil and a calculator. Calculators will not be provided to those who do not bring their own.
- 1:30-1:45 Snacks and mingling and head to room 250 for awards.
- 1:30-1:40 Tie-breakers if needed (room 259)
- 1:45-2:00 Awards and door prizes in room 250.

SAMPLE PROCTOR INSTRUCTIONS

CMC HS Math Competition – Individual Test Proctor Instructions

Proctors,

You will be proctoring the individual test. Please follow the instructions below.

You should have received the following materials: scantrons, scratch paper, individual exams, pencils

Begin promptly at 11:15!

Tell students: “You will need a pencil to fill out your scantron; you may use a calculator on the test. You may not share calculators. Please turn all cell phones off and put them out of sight. Any use of a cell phone during the test will disqualify you. All exam materials and scratch work must be turned in when the test is over. Please refrain from talking until the test is over. You may not leave the room until after the test is over. You will have 40 minutes for this test.”

Distribute the scantrons and test. Tell students “Read the cover page and fill in the appropriate information on your scantron. Do not begin until I say so.”

When students seem ready, tell them to begin and start timing.

They will have 40 minutes to complete this test.

You shouldn’t start timing any later than 11:20.

If a student comes in late, they may take the test but with no additional time. They must finish when time is called.

Please actively proctor. Watch that students aren’t cheating or using cell phones.

When time is up, collect ALL materials. Release students for lunch outside of room 250 and tell them “The team test will begin in the same room promptly at 12:45 so don’t be late!” Direct students to restrooms and room 250.

Once you have all of the testing materials, bring them to room 215 ASAP to be graded.

Text me if you need anything during the test. xxx-xxx-xxxx