

SPONSORS' COMPETITION REFERENCE GUIDE

2021-2022

Print this guide and keep it with you at all times. It explains what you need to know about Mu Alpha Theta and its competitions. If you have questions about what is in this guide, contact your Regional Director or ask questions at the sponsors meetings at the Regionals, Statewide Competitions, or at the State Convention.

TABLE OF CONTENTS

FAMAT Executive Board	page 3
Important Information for 2021-2022	page 5
Sponsors' Quick Guide	page 7
Help For New Sponsors	page 10
FAMAT Important Dates	page 12
Regional & Statewide Competitions	page 13
State Convention Information	page 17
National Convention	page 26
Invitation to all FAMAT Competitions	page 27
Driving Instructions	page 28
Eligibility of Students	page 29
Competition Rules	page 30
Instructions for Creating Student ID Numbers	page 32
Sample Printout of ID's	page 33
NCS Bubbling Instructions	page 34
Fall Interschool Test	page 35
Hiller/Nunn/Dostal Tests	page 36
Proctoring Instructions for Individual Tests	page 38
Team (Bowl) Proctor Instructions	page 40
FAMAT Application for Membership (High Schools)	page 42
FAMAT Application for Membership (Middle Schools)	page 43
Crossover Request	page 44
FAMAT Competition Assessment Form	page 45
FAMAT Competition Financial Report	page 46
Common Resolution to Resolve Document	page 47
FAMAT Glossary	page 49

FAMAT Executive Board 2021-2022

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Vice President for Regionals/ Statewide Competitions	Michael Grigelis <u>famattests@gmail.com</u>	American Heritage Boca/Delray 6200 Linton Boulevard Delray Beach, FL 33484 (561) 495-7272 (561) 495-6106 FAX
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Vice President for State Tests	Radleigh Santos <u>famatstatetests@gmail.com</u>	American Heritage 12200 W. Broward Blvd. Plantation, FL 33325 (954) 472-0022
Vice President for Computer Operations	Brian Holt <u>floridamao@gmail.com</u>	
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Treasurer	Kim Woolfenden <u>woolfmath@aol.com</u>	

Mail all forms and dues to
Kim Woolfenden
14220 N. Hwy 301
Thonotosassa, FL 33592

DO NOT SEND ANYTHING “special” delivery. It WILL NOT be picked up from the post office.

FAMAT Executive Board 2020-2021

(con't.)

Region 1 Director	Randal Stowers stowersr@leonschools.net	Lincoln High School 3838 Trojan Trail Tallahassee, FL 32311 (850) 487-2110 (850) 922-4173 FAX
Region 2 Director	Will Frazer willfrazer@yahoo.com	Buchholz High School 5510 NW 27 th Avenue Gainesville, FL 32606 (352) 955-6702 (352) 955-7285 FAX
Region 3 Director	J. Adam Dansby Julian.dansby@palmbeachschools.org	Palm Beach Central HS 8499 W Forest Hill Blvd Wellington, FL 33411 (561) 304-1000 (561) 304-1017 FAX
Region 4 Director		
Region 5 Director	Lisa Herron Lisaherron1968@gmail.com	Cypress Bay High 18600 Vista Park Blvd. Weston, FL 33332 (754) 323-0350 (754) 323-0363 (FAX)
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FAMAT Student Delegate Board

President	Ritvik Teegavarapu teegavarapuritvik@gmail.com
Vice President	Odin Farkas omfarkas@gmail.com
Treasurer	Corbin Diaz pl242741@ahschool.com
Secretary	Himal Bamzai-Wokhlu himalb23@gmail.com
Tech Coordinator	Brighten Jiang jiangbrighten@gmail.com

IMPORTANT INFORMATION FOR 2021-2022

- If a school is K-12 or 6-12, the school must register as **TWO SEPARATE SCHOOLS**. One team would have students from grades 6-8 and the other from grades 9-12. Middle school students **CANNOT** compete on the high school team.
- We are using the printable scantron for all competitions. The form is under Downloads at floridamao.org.
- The registration fees for Regionals and Statewide Competitions are now \$10/test if the payment is made on time and \$20/test if the payment is late. Make sure to follow the deadlines to avoid paying the late fees.
- For the January and February Statewides, we are testing a new team round scoring system. For each question in all 6 divisions, there will be four parts. Each part will be worth 2 points each no matter which minute the question is turned in. If a team gets all four parts correct in the minute they turn it in, they will get a bonus. That bonus is 12-8-4-0 for minutes 1-4. If no team gets all four parts correct in minute one, then the bonus slides to minute 2 and would be 12-8-4. If no team gets all four parts correct in minute 2, then the bonus slides to minute 3 and would be 12-8. If no team gets all four parts correct in minute 3, then a team that gets all 4 parts correct in minute 4 and get 12 bonus points.
- Please review the eligibility chart on page 24 of this guide. Students may test in a higher division if they choose but they can **NEVER** test in a lower division.
- For Algebra 1 and Geometry Team Rounds **ONLY** at Regionals, we are providing a bonus for schools that answer all 4 parts of the question correct. If a team answers all 4 parts in the first minute, they get a 4 point bonus for a total of 20 points. If a team answers all 4 parts in the second minute, they get a 3 point bonus for a total of 15 points. The scale continues (2 pts and 10 total for minute 3 and 1 pt and 5 total for minute 4).
- We have a forum to post messages and announce information for FAMAT activities to keep the

schools informed. Please go to the following link: <https://groups.google.com/forum/#!forum/floridamao> and register for the forum. You will have to verify your email address with the forum after you register. This verification may go into your “spam” folder, so please check your spam after you register for the forum. This forum will replace the list-serve as the primary method of communication for FAMAT. If anyone has any questions regarding the forum sign-up, please email Brian Holt at: floridamao@gmail.com

- **The annual student dues, paid by November 1st, are \$7 per student. This applies to ALL MEMBERS (HIGH SCHOOL). Middle schools pay \$70 for their school dues, no matter the number of members in the middle school. If schools do not sign up members by November 1st, there WILL BE A \$50 FINE IMPOSED ON THE SCHOOL.**
- **Cheating Policy: If a student cheats during a competition (cheating reported to Host, Host reports to President): 1st offense – student out of that competition (all scores), State Convention (all scores from the entire convention). 2nd offense – student out of FAMAT for the remainder of High School. The FAMAT President will be responsible for maintaining a list of those students involved.**
- **New sponsor information can be found on page 10. This outlines some of the things that you will need to know as a new sponsor.**
- **All registrations are now done online through floridamao.org. When you register your students, print the receipt and mail it to the treasurer. Competition registrations will also occur online. Print the form and mail it to the host school by the post mark date.**
- **Crossover requests will automatically be accepted under these conditions: Schools may crossover if the distance to the other site is shorter than the distance to the assigned site. All crossover requests must be submitted **online by December 1st**.**
- **Sponsors: Remember high schools must pay \$7 fees for EACH of your Mu Alpha Theta members yearly to FAMAT. You must pay the \$10 National Mu Alpha Theta fee for your members only once - when they become FULL members (Algebra 2 and above). All Associate members (Geometry) must be enrolled on the Nationals site, but no membership fees are due for them.**
- **The deadline for changes for the January Statewide Competition will be Monday, noon eastern time on January 3, 2022. No more changes (additions) may be made after that time.**
- **In order to maintain consistency in scoring from region to region, the following policy is in effect for the bowl round. For each division, if a school has no team at all, then they should be marked absent and no score should be entered, thereby eliminating the team from the T-Score process. A**

school who fields a team starts with a score of four in the bowl round. This will ensure that every team that participates in the bowl round is in the T-score process.

- Sponsors – tests and full results are available on the floridamao.org website shortly after the end of each competition. The host may (at its sole discretion) provide printed results to schools who request them; the host may also charge a fee for providing printed results. If your school travels by bus to the competition, then the host may (at its sole discretion) provide the service of copying the results. If you want to view the results or tests on the way home, you will need to bring a laptop computer that reads PDFs with you.

FAMAT SPONSORS' QUICK GUIDE

Many schools join FAMAT to compete in one or more competitions. To be able to do this you must:

1. Get a National Mu Alpha Theta charter and be an active member of the National organization and renew dues each year by May 1. Remember, you pay the \$10 fee for each student only once in their high school career after they become a FULL member - Algebra 2 and above. Associate members, Algebra I and Geometry, need to be reported to the National folks, but you are not responsible for paying the \$10 membership fee for them.
2. Join the Florida Association of Mu Alpha Theta (FAMAT) and pay dues by November 1. You must pay the \$7 fee for all of your kids YEARLY!
3. Enroll students with FAMAT ID #s online at www.floridamao.org by November 1.
4. Register for the particular competition.
5. Subscribe to the FAMAT list serve.
6. Information for Middle Schools

1. National Mu Alpha Theta Charter and Membership

To apply for a National Mu Alpha Charter, go on-line to www.mualphatheta.org or contact the National office by mail or e-mail. Jennifer Pai will provide information to obtain a national charter. In addition, chartered schools must pay yearly dues to keep their chapter active. If your chapter is delinquent for 2 years, you will be dropped from the membership list. You may re-activate your membership by contacting Jennifer.

**Jennifer Pai
National Mu Alpha Theta
3200 Marshall Avenue, Suite 150
Norman, OK 73019
info@mualphatheta.org**

2. Florida Association of Mu Alpha Theta Membership

After schools have a national charter (or during the process), schools can join FAMAT. The membership form is in this guide or can be downloaded from www.floridamao.org. If you have questions about membership, contact FAMAT Treasurer: Attn.: Kim Woolfenden, 14220 N. Hwy 301 Thonotosassa, FL 33592. Kim's email address is: woolfmath@aol.com

13. Enrolling students with a FAMAT ID#

- a) Enroll students with a FAMAT ID# online at floridamao.org.

Directions for FAMAT ID #s are available on the website and in this guide. Sponsors are strongly encouraged to register your students on-line.

- b) **Each competitor must use the answer sheet from the Downloads section of the website when competing.** FAMAT ID #s should be bubbled before students enter the room to take the individual test.

4. a. Initial Registration for a Regional or Statewide Competition :

14 or More Days Before the Competition: Complete registration for the competition online at floridamao.org . Send the printout of the competition form to the host school with \$10 per individual test registered for by the postmark date. Schools that register 14 or more days in advance of a competition, may update their registration online, adding a maximum of 8 students at \$12 each, 3-13 days before a competition.

3-13 Days Before the Competition (Late Registration): Contact the host for permission to register late. If written permission is granted, the registration fee is \$20 per individual test. Payment options (send payment now or pay at the competition) are to be discussed between the registering and host schools.

0-3 Days Before the Competition: NEITHER INITIAL REGISTRATION NOR UPDATES MAY OCCUR DURING THIS TIME.

Additionally:

- i. Sponsors are required to e-mail their registration numbers to the host with numbers by division, though this will not substitute for the registration and check being mailed and postmarked correctly.
- ii. Whether you notify the host school by mail, email, or phone, you will be responsible for paying for EACH individual test you register - whether or not the tests are taken at the competition.
- iii. Sponsors are strongly encouraged to bring proof of registration and payment to each competition.
- iv. **SCHOOLS NOT REGISTERED FOR A COMPETITION AT LEAST 3 DAYS BEFORE THE COMPETITION MAY NOT PARTICIPATE.**
- v. Non-FAMAT schools will be assessed a \$70 non-FAMAT member fee competition they participate in. If you paid your FAMAT dues after November 1, you will need to carry your letter of receipt from the treasurer to each competition to avoid paying the \$70 fee.

b. Registering for State Convention (All forms and registration are postmarked by March 14)

- i. Send the registration form with fees to the Treasurer. The State Convention Registration Form is in this packet.
- ii. Enter information for topic tests, t-shirt sizes, and special meals online.
- iii. Packet will be available at floridamao.org in LATE January. On-line registration for the State Convention is due on March 14. The site will close at midnight. **NO CHANGES ARE POSSIBLE AFTER THIS TIME UNDER ANY CIRCUMSTANCES!**
- iv. The 2022 State Convention is at the Rosen Plaza Hotel in Orlando on April 8-9.

5. FAMAT forum: KEEP INFORMED!!!

We are using a new forum to post messages and announce information for FAMAT activities to keep the schools informed. Please go to the website, floridamao.org and click on FAMAT Message Board and register for the forum. You will have to verify your email address with the message board after you register. This verification may go into your “spam” folder, so please check your spam after you register for the forum. If anyone has any questions regarding the forum signup, please email Brian Holt at: floridamao@gmail.com

6. Middle Schools Only

You do NOT need to do numbers 1 and 4b above. Middle schools cannot be FAMAT or National members nor compete at the State Convention.

Announcements are made by the Executive Board, members, and hosts of competitions. Sponsors can e-mail questions, suggestions, etc., to all members of the FAMAT list serve. You will NOT be receiving invitations to competitions; hosts of competitions will be posting information unique to their competition to the list serve.

Other Resources

FAMAT schools can keep abreast of FAMAT information in a variety of ways.

1. FAMAT Information

a. You can always find information online at floridamao.org.

This site has links to National Mu Alpha Theta, and you can direct questions to the FAMAT president. Questions for the FAMAT president, Rob Snow, may be directed to robsnow23@yahoo.com

b. Mu Alpha Theta message boards may be linked from floridamao.org.

2. FAMATCGRAPH- This is the FAMAT competition guidelines/regulations and policy handbook. It is available online at <http://floridamao.org/PublicPages/Downloads.aspx>.

Help for New Sponsors

GETTING READY TO COMPETE

- Download the sponsor's guide at <http://floridamao.org/PublicPages/Downloads.aspx>. Familiarize yourself with its contents.
- If you are taking over an existing school and do not know how to log into the website, OR if you are sponsoring a new school, OR if you are not sure, then email floridamao@gmail.com with the following information:
 - Your name
 - Your school name
 - Your school addressYou will receive a response email within a week with your login information.
- Login to the site and fill in your school and sponsor information
- You can then enroll your students.
- After all students are enrolled, you can print your registration summary and mail your check. Registration payment must be postmarked by November 1!
- Join the forum (the sponsor discussion forum) – <https://groups.google.com/forum/#!forum/floridamao> . Discussion as well as important announcements happen there. Feel free to ask questions and you'll get answers!
- Get your school registered for the season in October.
- Register for competitions early (typically more than 2 weeks ahead of time). Watch the forum for announcements from the competition hosts. The internet-based competitions begin in November normally, and in-person competitions run from January through April.
- You can use the answer sheet under Downloads on the website for competitions.
- Have two or more sharp pencils for each student.
Download some practice tests from the Test Bank and get your competitors ready for the season!

OVERALL

- FAMAT has divided Florida into 5 Regions to minimize driving time/distance for Regional Competitions. All 5 Regional competitions are held simultaneously. Regional competitions are typically 1½ hours or less from your school.
- The first competition is the Fall Interschool test held in November. It will be available to download from www.floridamao.org under the downloads link.
- The first Individual competition of the season is called the Hiller/Nunn/Dostal Test. It is held in December. All FAMAT students take it on the same day at their school and the sponsor mails-in the answer sheets that can be found under Downloads on the website.
- In winter, expect a monthly Regional and State-wide competition. Everyone is invited to attend these competitions which are held at schools. Whereas Regionals are held nearby, Statewide Competitions are held at one location anywhere in Florida.
- In April, the Florida state convention is held at the Rosen Plaza in Orlando. All FAMAT High Schools are invited to attend.

STRONG MATH TEAMS

- Over 150 Florida schools have math teams competing in various FAMAT competitions across the state.
- Florida has very active and strong competitions.
- Many students practice previous tests that are located on www.floridamao.org and then click on test bank.
- Many schools offer year long courses that incorporate competition questions throughout.

AT THE COMPETITIONS

- **You'll have a lot of fun. Other sponsors are very helpful. Food is provided for sponsors. All sponsors are expected to "work" one round of the competition (proctoring tests or monitoring the team round room).**
- **Your students will have a lot of fun. They'll meet lots of other kids that are nice and smart just like them.**
- **Most schools come in buses**
- **You'll go out to lunch at a mall or fast-food restaurant. Maps and directions are usually provided.**
- **Regional competitions have 20 or more schools competing across 6 divisions (400 to 1000 students). Get there by 8:00 a.m. and expect to leave at about 3:00 p.m.**
- **Statewide competitions have 30 or more schools competing across 6 divisions (1000 or more students). Get there by 8:00 a.m. and expect to leave at about 3:30 p.m.**

AFTER A COMPETITION

- **Expect to be challenged by some of the competition questions**
- **Results of the competition and the tests and solutions are posted online shortly after the competition. Hosts may provide printed standings to sponsors, by request, and may charge a small fee for this.**

Many times students will access this on the trip home via laptops or smart phones that can read PDF files.

FAMAT IMPORTANT DATES FOR 2021-2022

EVENT DATE	EVENT	POSTMARK DATE
October 27 – November 3	Fall Interschool Test	November 3
	Answers Available	November 5
	Disputes	November 10
November 1	FAMAT Dues	November 1
December 1	Crossover Requests	December 1
December 1	Hiller/Nunn/Dostal Tests	December 2
	Answers Available	December 3
	Disputes	December 6
January 15	Buchholz Statewide	December 18
January 29	Regional Competitions	January 15
February 12	Regional Competitions	January 29
February 26	American Heritage Palm Beach Statewide	February 12
March 1	Final FAMAT Updates due	March 1
March 5	Regional Competitions	February 19
April 7-10	State Convention	
	Rosen Plaza forms	March 14 (π Day)
	Registration & \$ to treasurer	March 14 (π Day)
	On-line Registration	March 14 (π Day)
July 10-15	National Convention -	Final – May 1
	Washington, DC	Payment, registration, forms

FAMAT COMPETITIONS FOR 2021-2022

Regional Competitions: Register for the competition online at www.floridamao.org.

	Region 1	Region 2	Region 3	Region 4	Region 5
1.29.2022	Rickards		Orlando Science	King	FAU Davie
2.12.2022	Lincoln	Flagler Palm Coast		Middleton	Golden Gate
3.5.2022	Rickards		Suncoast	Dunbar	Cypress Bay

Statewide Competitions: Register for the competition online at www.floridamao.org.

(There will be a student delegates lunch at all statewide competitions)

<u>JANUARY 15, 2022</u> Buchholz Statewide Will Frazer Buchholz High School 5510 NW 27 th Avenue Gainesville, FL 32606 willfrazer@yahoo.com		<u>FEBRUARY 26, 2022</u> American Heritage Palm Beach Statewide Derek Rampal American Heritage Palm Beach 6200 Linton Blvd Delray Beach, FL 33484 derek.rampal@ahschool.com
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Calculator usage at all Statewide Competitions: No calculators except for the Statistics division, unless stated by the competition host.

January 29, 2022 Regionals

	<i>location</i>	<i>contact person</i>	<i>send payment to</i>	<i>contact info</i>
Region I	Rickards High School 3013 Jim Lee Road Tallahassee, FL 32301	Adam Juhasz Juhasza@leonschools.net	Same	School: (850) 488-1783 Fax: (850) 922-7104
Region II			same	
Region III	Orlando Science High 2427 Lynx Ln Orlando FL 32804	Abdulkerim Akyalcin akyalcin@orlandoscience.org	same	Phone: (407) 253-7304 Fax: (407) 253-7305
Region IV	King High 6815 N 56 th Street Tampa, FL 33610	Barbara Emil Barbara.Emil@sdhc.k12.fl.us	Same	School: (813) 744-8333 Fax: (813) 744-8343
Region V	FAU- Davie Campus 3200 College Avenue Davie, FL 33314	Radleigh Santos radleigh.santos@ahschool.com	Send payment to: Leigh Chin American Heritage Upper School 12200 W. Broward Blvd. Plantation, FL 33325	School: (954) 472-0022 Fax: (954) 472-0358

February 12, 2022 Regionals

	<i>location</i>	<i>contact person</i>	<i>send payment to</i>	<i>contact info</i>
Region I	Lincoln High School 3838 Trojan Trail Tallahassee, FL 32311	Randy Stowers stowersr@leonschools.net	same	School: (850) 487-2110 Fax: (850) 922-4173
Region II	Flagler Palm Coast 5500 East Highway 100 Palm Coast, FL 32164	Jennifer Santore santorej@flaglerschools.com	Same	School: (386) 437-7540 Fax: (386) 437-7546
Region III			Same	
Region IV	Middleton High School 4801 N 22 nd Street Tampa, FL 33610	Robert Heinsen Robert.heinsen@hcps.net	Same	Phone: (813) 233-3360 Fax: (813) 233-3364
Region V	Golden Gate High 2925 Titan Way Naples, FL 34116	Aleksander Kukushkin KukushAl@collierschools.com	same	School: (239) 377-1600 Fax: (239) 377-1601

March 5, 2022 Regionals

	<i>location</i>	<i>contact person</i>	<i>send payment to</i>	<i>contact info</i>
Region I	Rickards High School 3013 Jim Lee Road Tallahassee, FL 32301	Adam Juhasz Juhasza@leonschools.net	Same	School: (850) 488-1783 Fax: (850) 922-7104
Region II				
Region III	Suncoast High School 1717 Avenue S Riviera Beach, FL 33404	Elizabeth Pearson Elizabeth.pearson@palmbeachschools.org	same	School: (561) 882-3400 Fax: (561) 882-3443
Region IV	Dunbar High School 3800 Edison Avenue Fort Myers, FL 33916	Phillip Savage phillipds@leeschools.net	same	School: (239) 461-5322 Fax: (239) 461-5110
Region V	Cypress Bay High 18600 Vista Park Blvd Weston, FL 33332	Lisa Herron lisa.herron@browardschools.com	same	School: (754) 323-0350 Fax: (754) 323-0363

FAMAT State Convention

April 8-9, 2022

ROSEN PLAZA HOTEL (9700 INTERNATIONAL DRIVE ORLANDO FL)

Contact: Rob Nichols

Email: famatconvention@gmail.com

You will find all the information needed for the State Convention on the FAMAT web page at floridamao.org in late January. (However, the registration form is included in this packet so you can get it to your bookkeeper in a timely manner.)

A count down will be posted on the FAMAT message board. From time to time, the names of the schools who have registered will be posted on the FAMAT message board. Check the postings to verify your final registration information.

Only FAMAT member schools that have paid dues by November 1 will be eligible to register associate/full members for the State Convention. Sponsors will need to:

- 1. send registration form and registration fees to the treasurer postmarked by March 14 or a \$50 fine will be imposed AND**
- 2. submit all information ON-LINE concerning topic tests, t-shirt sizes, and meals AND make sure to FINALIZE!!**
- 3. make hotel reservations with the hotel. Send your rooming list and payment when you make your reservations. Schools must stay at the Rosen Plaza Hotel at least two nights in order to participate in the State Convention. Schools doing otherwise may not compete at the State Convention, risk being suspended from future FAMAT activities, and a fine.**

Entering information online DOES NOT REPLACE SENDING THE REGISTRATION FORM (found in this packet) WITH \$\$\$. The deadline for submitting all information online and mailing the registration fee is π Day, *March 14, 2022*. The hotel deadline is also π Day, *March 14, 2022*. Info will be in state packet available in January at floridamao.org.

NOTES :

- 1. Minimum 2 night stay at the state hotel (Thurs/Fri or Fri/Sat are options). FAMAT does not pay for the convention facilities because of the number of rooms that we book for overnight stay. Therefore, we must have all schools stay the 2 nights so that FAMAT can avoid paying for the convention facilities and extra tables needed for testing.**
- 2. No exceptions to deadlines for online forms, registration forms and fees, and hotel reservations.**
- 3. All adults must be registered and will have assigned duties. This includes parent chaperones.**
- 4. Only FAMAT associate and full members (students in grades 9-12) may participate. Full members must have completed four semesters of college preparatory mathematics (Algebra I and above), are enrolled in a more advanced mathematics course or have completed the highest course offered at the high school, and have maintained a B or better average in overall academic work and in mathematics. Associate members must have completed two semesters of Algebra with a grade of B or better and must be enrolled in a third semester of advanced mathematics.**
- 5. Convention registration form and list of topic tests can be found in this packet.**
- 6. No middle school students (below grade 9) are eligible. High school students who are taking math courses below Geometry are not eligible to attend the FAMAT State Convention.**

FAMAT 2022 STATE CONVENTION

REGISTRATION FORM



School Name : _____ FAMAT ID _____

School Address : _____

City, Zip : _____

Lead Sponsor's Name : _____

Lead Sponsor's : School Phone # (____) _____ Home Phone # (____) _____

Lead Sponsor's E-mail Address : _____

List All Other Sponsors and Chaperones Names : _____

Total # of Students _____ x \$140 = \$ _____

Total # of Sponsors _____ x \$90 = \$ _____

Extra T-Shirts _____ x \$10 = \$ _____

Note : Additional charge for shirts above XL \$ _____

Total Remittance \$ _____ check # _____

Make your check out to "FAMAT". Your registration form and fee must be postmarked by March 14 (π Day) and mailed to: Treasurer Kim Woolfenden, 14220 N. Hwy 301, Thonotosassa, FL 33592

DO NOT SEND "special mail" It will NOT be picked up.

Reminders :

***All participants must stay at the Rosen Plaza Hotel for the duration of their stay for the FAMAT State Convention (minimum 2 nights). All hotel forms and money go directly to the hotel. You must include your room names. These forms can be found in the State Convention packet that will be on-line in January at floridamao.org**

***With few exceptions, all sponsors and chaperones will be assigned two or more proctoring duties.**

***No middle school students are eligible to attend the FAMAT State Convention. High School students must be full or associate members in order to be eligible to attend.**

FAMAT STATE CONVENTION - 2022 TESTS

When you enter this information online, please indicate the number of students you are registering for each test. In your registration packet at the State Convention, you will receive tickets for the topic tests as specified below. Students will need to bring these tickets when taking topic tests. Deadline for entering this information online is March 14, 2022.

Ciphering Round

Theta Ciphering

Alpha Ciphering

Calculus Ciphering

Round 1 Topic Tests

Quadrilaterals (Theta)

Functions (Theta)

Theta Applications (Theta)

Trigonometry (Alpha)

Equations and Inequalities (Alpha)

Analytic Geometry (Alpha)

Integration (Calculus)

Calculus Applications (Calculus)

Sequences and Series (Calculus)

Statistics (Open)

Gemini (Open)

Round 2 Topic Tests

Geometry (Theta)

Conics (Theta)

Logs and Exponents (Theta)

Applications (Alpha)

Complex Numbers (Alpha)

Matrices and Vectors (Alpha)

Limits and Derivatives (Calculus)

Area and Volume (Calculus)

BC Calculus (Calculus)

Probability (Open)

History of Math (Open) Topic: Potpourri

HUSTLE : Hustle is a high speed team event in which 4 team members try to answer questions in various categories.

Each school may have one Hustle team with no more than 2 members from the same division, except Theta. Additionally, each school must have one sponsor/chaperone and an additional sponsor/chaperone or student who will score for another school. If you do not have a sponsor and/or an additional person, you may not compete unless given permission from the head proctor of Hustle. Larger schools are encouraged to have more than 2 graders/scorers assist with Hustle.

The rules for Hustle are as follows:

There will be 5 rounds of 5 minutes each. The team is presented with 125 color coded questions in these categories : Geometry, Algebra II, Pre-Calculus, Calculus, and Statistics.

In each round, the team can answer no more than 5 of any one color and 25 questions in all. If more than 25 answers are submitted in a round, the graders will “throw back” answers giving consideration to the rules outlined before. At the end of each round, one-minute and 15-second warnings will be given. Teams must submit their answers between the 15-second warning and the end of the round. Correct responses will be awarded the following point values :

Round 1 – 6 points

Round 2 – 5 points

Round 3 – 4 points

Round 4 – 3 points

Round 5 – 2 points

The rounds are continuous with no breaks between them. Awards will be given to the top 10 teams with individual awards also given to the team members. Hustle will count towards each school's sweepstakes scores.

COMPUTER PROGRAMMING TEST: **COMPUTER PROGRAMMING TEST:** The one hour computer programming competition will consist of a set of problems for which teams must write programs to process specific input and display correct output for all cases provided by the judges. Data on the judges' sheet will be delimited by commas, but teams may delimit data in a way appropriate to their language (i.e. separated by spaces).

The problems will be of varying difficulty and will have appropriate point values assigned to each. The problems may be solved in any order. Ties will be broken by the sudden death method starting with problem 1. Each school is limited to one team of three members and one computer. Each school must supply its own computer, extension cord, and power strip. (Note: Schools need BOTH an extension cord AND a power strip) Programs may be written in Java, C/C++, Basic or Pascal. No calculators, cell phones or internet use is permitted. Each team is allowed one electronic or printed language reference source. (For example, the Java API's may be installed on the computer.) Judges reserve the right to accept or deny the use of any language reference materials. Teams should present their reference materials for approval before the contest begins. Teams are not permitted to use any prewritten code. All disputes must be submitted immediately after the judging of the contest. Contest judges will determine the validity of all disputes. The decision of the judges is final.

Traditional Scrapbook, Digital Scrapbook, Poster Information and Rubric for State Convention

Sponsors and students should read all information on scrapbook requirements before starting work on scrapbooks. Convention hosts and scrapbook judges will use guidelines in the State letter and Rubric/Scoring sheet.

Each school can submit only ONE scrapbook, either a Traditional or Digital scrapbook.

Head proctors will screen all books for possible penalties/deductions prior to the beginning of judging. Judges will then decide as a group if those deductions are warranted. The decision of the judges is final.

SCRAPBOOK COMPETITION – Traditional (Places 1-10)

A school may submit one “traditional” scrapbook where the binding must be on the left side of the book, and opens from right to left. Printed out (digital pages), professionally or unprofessionally bound will not be considered a traditional scrapbook and will be entered into the digital scrapbook competition (including but not limited to magazines and photobooks). Decision of the type of scrapbook submitted will be decided prior to judging time by the head proctors or hosts. The judges assigned to proctoring scrapbooks do not determine the type of scrapbook.

Measurements:

Book:

The size of the printed scrapbook is limited to outside maximum dimensions of 18” by 20”.

Cover: The scrapbook cover is a piece of paper, canvas, fabric, wood, plastic, etc. on which the cover design can be applied using paint, markers, etching, etc. Nothing can be glued, stapled, sewn or otherwise attached onto this cover. The cover (paper, canvas, fabric, wood, plastic) can be “attached” to the book. (For example, if a spiral notebook is used as a scrapbook, a cover can be painted on a canvas, and that canvas can be attached to the front of the spiral notebook.) A clear piece of plastic can be used to protect the cover from damage.

Judging Details (see rubric also):

Cover and/or Inside Page Violations: No videos, no fiber optics, no noise/sound of any kind (including but not limited to: music, bells, or whistles), no batteries, no velcro, no pop ups and no moving/shifting/turning if touched by the reader. All information, art, photos, etc. must be visible to the reader at all times. The reader should not have to manipulate or move anything from the original page or cover to see hidden information, photos, art, etc. These violations include but are not limited to: pull-outs, lift the flaps, turning wheels, mini books, buckles, fasteners, clasps, latches, hooks, straps, locks, chains, and seals. All of these violations will be under the “bells and whistles” or “interactive” section of the rubric. Judges will vote on possible violations during proctoring time.

For the Mu Alpha Theta logo point (Section 1, letter B), the following are acceptable: the words “Mu Alpha Theta”, the letters “MAO” or the greek letters, the Pythagorean design with the squares creating a 3-4-5 triangle.

Only school-appropriate language and images are permitted. No inappropriate, indecent, obscene, hateful, torturous, defamatory, slanderous, libelous, or discrimination based on race, gender, religion, nationality, disability, sexual orientation or age is permitted. Use of anything beyond PG rating will result in immediate disqualification. Judges will vote on these possible violations during proctoring time.

No unlawful actions or promotion of illegal actions whether in text or images is allowed. No illegal drugs, alcohol, firearms, or any activities deemed unsafe or dangerous is allowed. Failure to comply will result in immediate disqualification. Judges will vote on possible violations during proctoring time.

The period of time covered in the scrapbook should be from last year's convention to this year's present convention. Scrapbooks will be judged on creativity, organization, neatness, content, and cover design. There is a panel of 7 judges proctoring scrapbook. The high and low scores are thrown out and the remaining scores will judge the scrapbooks. All of the judges' decisions will be final. Scrapbooks are to be submitted at the time designated on the final convention schedule. Trophies will be awarded to the top ten places. This event does not count towards the Sweepstakes total. Judging sheets will be provided for your scrapbook. No need to copy. SEE Judging Form/Rubric below.

Scrapbooks must display the school name or initials, the year, and the words and or letters and or symbols for Mu Alpha Theta on the cover.

The tiebreaker is the total score of the 5 judges in the Content category. If there is still a tie, then the Artistic Quality, Overall Effect, and Cover category will be used in that order until the tie is broken.

Scrapbooks will be displayed after they have been judged.

Each chapter is responsible for retrieving its own scrapbook in the afternoon on the final day of the convention.

The decision of the judges is final.



SCRAPBOOK COMPETITION JUDGING SHEET

(TRADITIONAL)

(These sheets will be provided for you.)

School Name _____ School ID _____

Judge's # _____

Note to judges:

1) Please note that each subcategory under the four main categories is assigned a maximum point value. Write these point values in the spaces provided to the left, then total the points and write the total score for each category to the right.

2) Schools are given specific guidelines in the State Letter. Do not impose or add any of your own rules or guidelines that schools were not provided in the convention packet. For example, do not deduct points for not listing club officers, not doing enough community service, not providing printed programs from competitions, etc. Different schools have different types of clubs and attend competitions where no programs are distributed. If you have a question about this, speak to the head proctor.

I. Cover (15 points, maximum)	Total Points
_____ A. School name, Year and MAO logo (MAO, Mu Alpha Theta, or Pythagorean logo) (0 - 3 points)	
_____ B. Creativity/aesthetic appeal (0 - 7 points)	
_____ C. Sturdy construction/Ease of handling (0 - 5 points)	

II.	Content (30 points, maximum)	Total Points
_____	A. Coverage of membership information, club activities, competitions/results (0 - 15 points)	
_____	B. Consistency of theme (0 - 5 points)	
_____	C. Method/style of organization (0 - 10 points)	
III.	Artistic Quality (40 points, maximum)	Total Points
_____	A. Creativity of page layout (0 - 15 points)	
_____	B. Artwork/lettering (0 - 10 points)	
_____	C. Quality/creativity of photos (0 - 15 points)	
V.	Overall Effect (15 points, maximum)	Total Points
_____	A. Neatness, originality, thoroughness (0 - 10 points)	
_____	B. WOW factor (0 - 5 points)	

Deductions:

Exceeded maximum size of 18" by 20" (-20 points)	
Binding of book not on left/does not open right to left (-20 points)	
Bells and whistles, video, fiber optics, batteries, Velcro, or sound/noise of any kind on cover, interior pages, or any part of the book (-15 points)	
Interactive/moving part of the book (included but not limited to: pull outs, Pop ups, lift the flaps, turning wheels, mini books, buckles, fasteners, clasps, chains, seals) (-15 points)	hooks, straps, locks,
Inappropriate language or behavior – Disqualification	

Comments on back of page Total points (100 max) _____

SCRAPBOOK COMPETITION—Digital (This format is NOT accepted at National Convention)

Places 1-3 (Not included in Sweepstakes)

A school may submit one photo book created using a digital scrapbook program (eg. Photoshop Elements) or a digital photobook program (eg. Shutterfly/Snapfish/Walgreens), prepared by members of the chapter. The cover can be made by students or generated/made by digital scrapbook program. The size of the printed scrapbook is limited to outside maximum dimensions of 18" by 20. **No videos, no fiber optics, no "bells or whistles", or professionally prepared (other than printing the final product) scrapbooks will be judged.**

For the cover and for any interior page: no stickers, no attachments, nothing glued to the cover is permitted. Each page must be a digital page printed with nothing attached. The period of time covered in the scrapbook should be last year's convention to the present convention. Scrapbooks will be judged on creativity, organization, content, and cover design. There is a panel of 7 judges. High and low scores are thrown out and the remaining scores will judge the scrapbooks. All decisions of the judges will be final. Scrapbooks are to be submitted at the time designated on the final convention schedule. Trophies will be awarded to the top ten places. This event does not count toward the Sweepstakes total. **Scrapbooks that are neither the proper size nor are professionally prepared will have points deducted or be disqualified.** Judging sheets will be provided for your scrapbook- No need to copy. **SEE Judging Form- Below.**

The tiebreaker is the total score of the 5 judges in the Content category. If there is still a tie, then the Artistic Quality, Overall Effect, and Cover category will be used in that order until the tie is broken.



SCRAPBOOK COMPETITION JUDGING SHEET **(DIGITAL)**

(These sheets will be provided for you.)

School Name _____ School ID _____
Judge's # _____

Note to judges:

- Please note that each subcategory under the four main categories is assigned a maximum point value. Write these point values in the spaces provided to the left, then total the points and write the total score for each category to the right.
- Schools are given specific guidelines in the State Letter. Do not impose or add any of your own rules or guidelines that schools were not provided in the convention packet.

I. Cover (10 points, maximum)

_____ **Total points**

- _____ A. School name, Year, and MAO logo
(MAO, Mu Alpha Theta, or Pythagorean logo) (0 - 1 pt)
_____ B. Attractive design (0 - 5 points)
_____ C. Sturdy construction/ease of handling (0 - 4 points)

II. Content (30 points, maximum)

_____ **Total points**

- _____ A. Coverage of membership information, club activities,
competitions/results (0 - 15 points)
_____ B. Consistency of theme (0 - 5 points)
_____ C. Method/style of organization (0 - 10 points)

III. Artistic Quality (20 points, maximum)

_____ **Total points**

- _____ A. Quality/creativity of photos (0 - 7 points)
_____ B. Font selection (0 - 3 points)
_____ C. Style/color/design (0 - 5 points)
_____ D. Creativity of page layout (0 - 5 points)

IV. Overall Effect (20 points, maximum)

_____ **Total points**

- _____ A. Neatness, originality, thoroughness (0 - 10 points)
_____ B. WOW factor (0 - 10 points)

Total points (80 max) _____

Deductions:

_____ **Exceeded maximum size of 18" by 20" (-20 points)** _____

POSTER COMPETITION

Places 1-10 (**NOT** included in Sweepstakes)

The specific theme will be disclosed during opening ceremonies on Friday. Posters will be due on Saturday between 12 and 12:30 pm. The poster board will distributed Friday morning during registration and the entire poster must be constructed at the convention from the time the theme is disclosed at the opening ceremony until it is due on Saturday between 12 and 12:30 pm. All students may work as a team during this event. Only one poster per school is permitted. All materials are to be provided by your own school. NOTHING may be "attached" to the poster. (i.e. w/ glue, tape, etc.). No glitter, glitter glue or glitter pens are permitted. **DO NOT PUT NAME ON THE FRONT.** Mark the back with school name and #. A panel of seven judges will judge. The high and low scores will be thrown out and the remaining scores will judge the posters. All decisions of the judges will be final. Posters will be judged in the categories of creativity, neatness, demonstration of the theme, and use of mathematical concepts and knowledge. Trophies will be awarded to the top ten places. This event will not count toward the Sweepstakes total. Judging sheets will be provided for your poster- No need to copy. **SEE Judging Form- Below.**

The tiebreaker is the total score of the 5 judges in the Content category. If there is still a tie, then the Artistic Quality and Overall Effect category will be used in that order until the tie is broken.



POSTER COMPETITION JUDGING SHEET

(These sheets will be provided for you)

School Name _____ School ID _____
Judge's # _____

Note to judges:

Please write in point values for all subcategories on the left. Total these and write subtotals for each category on the right.

- **Use of any unauthorized materials or attachments will result in point deductions.**
- **Placement of school name on front of poster will result in a 20 point deduction.**

I. Content (30 points, maximum) _____ **Total Points**
_____ A. Originality (0 - 10 points)
_____ B. Theme Related (0 - 10 points)
_____ C. Math Related (0- 10 points)

The theme must be reflected in the artwork. The math used in the poster need not reflect the theme.
Titles in posters are optional and need not use the exact wording given when theme is announced.

II. Artistic Quality (40 points, maximum) _____ **Total Points**
_____ A. Lettering (0 - 10 points)
_____ B. Artwork (0 - 10 points)
_____ C. Color Coordination (0 - 10 points)
_____ D. Style/Layout (0 - 10 points)

III. Overall Effect (30 points, maximum) _____ **Total Points**
_____ A. Attractiveness/Neatness (0 - 10 points)
_____ B. Eye Catching Design (0 - 10 points)
_____ C. WOW factor (0 - 10 points)

Deductions: **Use of unauthorized materials or attachments (-20 points)** _____
School name, logo, initials or any other identifying elements on front (-20 points) _____

Total Points _____ (100 max)

Comments (on back): Note here if you use the back

Mu Alpha Theta National Convention 2022

**July 10-15, 2022
Washington, DC**

Packet should be available online in the fall at

<http://www.mualphatheta.org/>

Invitation to all FAMAT Regional and Statewide Competitions

Dear Mu Alpha Theta Sponsor,

This is the **ONLY** invitation you will receive for the Regional and Statewide competitions. Please refer to the FAMAT dates and hosts pages for the sites, hosts, dates, and postmark deadlines. Hosts will be posting additional information on the FAMAT list serve including the beginning time for the awards ceremony, interschool test, calculator use or other special events. Each school should have a sponsor that is a subscriber to the forum to receive this information. To subscribe to the forum, go to floridamao.org and sign up at the FAMAT Message Board on the left hand side of choices on the website.

Registration for Regionals generally will be held from 8:00 a.m. – 9:15 a.m. eastern time. The first testing session will start promptly at 9:30 a.m. eastern time. The awards ceremony will begin around 2:30 p.m. (host's decision). The schedule for Statewide competitions may differ from Regionals' schedules. You will find the exact time in the program of events at each competition. The following must be turned in at registration.

1. printout of online registration with competing students' names highlighted for each student competing Competitions will be held in Algebra I, Geometry, Algebra II, Statistics, Pre-Calculus, and Calculus. Each of the six division teams consists of four team members who take a 30 question multiple-choice written test and compete in a 12 question team round. An unlimited number of students may compete for individual awards in the written competition. Awards will be given to the top students in each division of the individual competition and to the top schools in the team competition and to each winning team member. Sweepstakes awards will be given as determined by the sum of the top four division t-scores for Geometry, Algebra II, Statistics, Pre-Calculus, and Calculus. **Students competing on a team (as opposed to an individual) MUST participate in both the individual test and bowl round with that team.**

Each school must bring its own answer sheets. Each student's answer sheet should have the student name, school name, division name, and ID number written in as well as the ID number bubbled (left justified). You will use the answer sheet found under Downloads on the website. Students will need to bring #2 pencils to take the tests.

Students may not use any calculators on any test (individual or team) in any division except for the Statistics division where students may use any calculator that is College Board approved. The hosts of Statewide Competitions may make their own rules about calculator usage.

Refer to the registration rules in this Sponsors' Guide. Sponsors will be assumed to know and follow these rules.

COMMON SCHEDULE FOR REGIONALS

8:00 - 9:15	Registration
9:30 – 11:00	Round I (Algebra I, Pre-Calculus, and Calculus Individual; Geometry, Algebra II, Statistics Team)
11:15 - 12:45	Round II (Geometry, Algebra II, and Statistics Individual; Algebra I, Pre-Calculus and Calculus Team)
12:45	Interschool test due (if there is one)
12:45-2:30	Lunch
~2:30	Awards Ceremony
(ALL TIMES EASTERN)	

NOTE: Regionals held in the Central time zone may have Round I begin at 9:00 central time and adjust their schedule accordingly.

**SCHEDULE FOR
STATEWIDE
COMPETITIONS**

7:30-8:45	Registration
9:00-10:30	Round I
10:45-12:15	Round II
12:15	Interschool test due (if there is one)
12:15-2:30	Lunch
~2:30	Awards Ceremony

Behavior Rules - Sponsors need to be aware of the following rules. Read these rules to competing students and make sure they understand them.

1. Any inappropriate behavior, including cheating, by a participant may lead to the banning of the student and/or school from future FAMAT competitions for up to one calendar year, at the discretion of the FAMAT Board.
2. Competitors are aware that sunglasses, hats, headphones, watches, beepers, cell phones and other electronic devices other than College Board approved calculators for Statistics students are not permitted during testing sessions.
3. Competitors from the same school are not permitted to sit adjacent to one another during the individual test.
4. Only one team per division will be seated, unless notification is given on the list serve by the host school.
5. Each school **MUST** have a current faculty sponsor that is employed at the school present at the competition.
6. Students are responsible for making sure the 9 digit FAMAT ID# is bubbled left justified on their answer sheet. If this is not done, the answer sheet will not be scanned, and the student will not receive a score.

Driving Directions to Host Schools

<http://www.mapquest.com>, www.maps.yahoo.com, or maps.google.com,

or contact the host school directly

FAMAT ELIGIBILITY CHART FOR COMPETITIONS

Students competing must be enrolled in Algebra I or higher. Eligibility for students in Algebra I, Geometry, Algebra II, and Statistics is one year each. The chart below outlines the tests students in each course may take.

Divisions	Regional and Statewide Comp. Divisions						State Convention			
Course presently enrolled in	Alg I	Geo	Alg 2	Pre-Calc	Calc	Stats		Theta	Alpha	Calc
Algebra I	*	*	*	X	X	X				
Geometry and/or Algebra II ***		***	***	X	X	X		X	X	X
Precalculus				X	X	X			X	X
Calculus					X	X				X
Statistics	X **	X **	X **	X	X	X				

NOTE: STUDENTS WHO HAVE PREVIOUSLY COMPETED IN STATISTICS ARE NO LONGER ELIGIBLE TO COMPETE IN STATISTICS. STUDENTS WHO HAVE NEVER COMPETED IN STATISTICS MAY DO SO WHETHER OR NOT THEY ARE CURRENTLY ENROLLED IN STATISTICS.

*Length of eligibility is 1 year for each of Algebra I, Algebra II, Geometry, and Statistics after which time the student will move to the next highest division.

** Students enrolled in Statistics and no other math class who have completed Algebra II/Geometry, but no higher math class and never competed in Algebra II/Geometry, may compete in Algebra II/Geometry while enrolled in Statistics.

*** Any student enrolled in or having completed Algebra II and/or Geometry may compete in Algebra II or Geometry or both in the same season. However, there is a “one-year” eligibility in each division, and all other eligibility rules are still in effect.

****At Regional and Statewide competitions students may take two individual tests as long as at least one of the tests is Statistics, Pre-Calculus, or Calculus. Under no circumstances may a student test down. Remember to pay for BOTH tests with your registration.

Eligibility for FAMAT State Convention

Schools attending the State Convention must be current members of National MAΘ and FAMAT.

Only students who are full or associate member of both organizations can attend the State Convention. See glossary for definition of full and associate members.

Theta-full or associate members who are enrolled in Algebra II and/or Geometry

Alpha-full members who have completed Algebra II and Geometry but are not enrolled in or have completed Calculus

Calculus - open to any full member

FAMAT COMPETITION RULES

Please read these to your students before you attend a competition.

GENERAL RULES

1. ID #s have 9 digits. Write them in the appropriate space then bubble left justified. Failure to correctly bubble the ID# will result in automatic disqualification.
2. Scoring is 4 times the number correct, minus the number wrong. Answers left blank count as zero points.
3. Students may not use any calculators on any test (individual or team) in any division except for the Statistics division where students may use any calculator without a qwerty keyboard.
4. You may NOT sit adjacent to anyone from your school during the individual test.
5. No watches, hats, sun glasses, headphones, beepers, cell phones or other electronic devices other than calculators for Statistics students may be used.
6. Any inappropriate behavior (this includes any form of cheating) by a participant may lead to the banning of the student and/or school from future FAMAT competitions for up to one calendar year at the discretion of the FAMAT Board.

FILING REQUESTS TO RESOLVE/ANSWERING QUESTIONS

7. If a student believes a test item is defective, select E. NOTA and file a request to resolve form explaining why.
8. In the case that a question has multiple correct answers, all correct answers will be counted as correct. DO NOT select "NOTA". This applies even if one of the answers is in a more simplified form than another. If your answer is (is not) one of the choices, write a request to resolve explaining why your answer should also be accepted.
9. If AN ANSWER CHOICE IS NOT COMPLETE choose "NOTA." For example, when solving a quadratic where there should be two solutions, a choice providing only one solution should NOT be chosen. On the other hand, if a question asks for "A solution ...", a choice providing only one solution would be correct.
10. The phrase "two numbers" is to be interpreted as allowing the two numbers to be equal. The phrase "two distinct numbers" means find two different numbers.
11. If a student files a request to resolve claiming what the request to resolve center believes is a unique or highly unusual interpretation of the problem, the request to resolve center may award that student credit while allowing the intended answer for all other students.
12. Students should select E. NOTA ONLY if they believe either there is no correct answer or the question is seriously flawed.
13. Unless a question asks for an approximation or a rounded answer, give the EXACT answer.

PARTICIPATION RULES

14. At Regional and Statewide competitions students may take two individual tests as long as at least one of the tests is Statistics, Pre-Calculus, or Calculus. Under no circumstances may a student test down. Remember to pay for BOTH tests with your registration.
15. For Statewide Competitions where the host is responsible for writing the tests, students of the hosting school may not compete.
16. For Regional competitions, students of the hosting school may compete.
17. No division team can be made up of students from more than one school.
18. Students must participate under the name of the school they attend (where their permanent record is held) no matter where they take their mathematics class. Schools must be charter members of the National association.
19. If more than one team per division is seated, there will be only one trophy per division per school.

20. In the case that two teams from the same division are on the floor from the same school, and they both place in the top five (with their composite scores) the team with the lowest score will not receive a trophy but will receive verbal recognition at the awards ceremony. That recognition is to be given at the end of that division's awards.

SCORING/TIE BREAKERS

21. Scoring for the sweepstakes award will be the total t-score points accumulated from the top four of the Geometry, Algebra II, Statistics, Pre-Calculus, and Calculus divisions for each school.

22. All ties at all levels will be broken by the sudden death method and subsequent hierarchy.

23. Ties will be broken on the individual test by the following sudden death method:

- a. Compare the answer sheets beginning with question 1.
- b. Find the first two answers that are different and compare those as follows:
 - i. a correct answer is better than a blank or incorrect answer
 - ii. a blank answer is better than an incorrect answer
 - iii. If the papers are identical, the students will be called down at the awards ceremony before any of the awards for their division are given. Students involved will be given a question of at most one minute in length. The first correct answer will break the tie. This process will continue until the tie is broken.
 - iv. If the tie is for the last award, the students will be notified what place they are competing for, otherwise, they will not be informed.

24. Ties will be broken for the division scores using the sudden death method as follows:

- a. Compare the final team (bowl) totals
- b. Compare team (bowl) scores per question by points until there is a discrepancy. The highest number of points on that question breaks the tie.
- c. Compare individual scores with the highest scoring team member.
- d. Use the procedure outlined in 23 above beginning with the best individual scores.

25. Ties will be broken for the sweepstakes award by the sudden death method as follows:

- a. Compare the highest division both schools counted toward the sweepstakes in the following order: Calculus, Pre-Calculus, Statistics, Algebra II, and Geometry.

26. Crossover request – Crossover request forms must be submitted **ONLINE** to the President of FAMAT by December 1 of the year prior to the regional competition. Schools may attend Regional competitions in another region based on hardship. Usually hardships are based on an extreme variance in distance. The crossover request form is available at floridamao.org and must be filled out completely. If there is no host for a regional, schools in that region may go to any region without filing a crossover request and do not have to pay crossover fees.

MIDDLE SCHOOL STUDENTS (below grade 9)

27. Students in grades below 9th grade must compete under the name of the school where their permanent record resides, no matter where they take their mathematics class.

28. Sponsors need to send an Application Form for Membership to the treasurer with a check for \$70. Upon receipt, the treasurer will send you a school ID number to use for the competitions. This number may be different from the number you used last year.

29. See page 24 for eligibility for students.

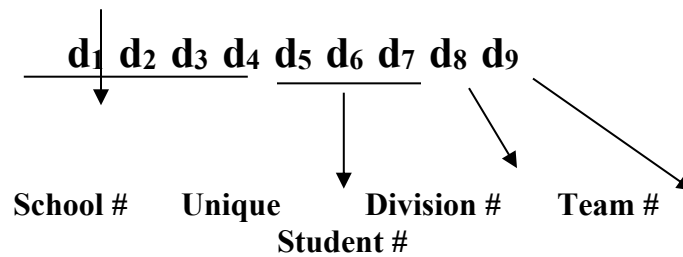
30. If a school is K-12 or 6-12, the school must register **TWO TEAMS**. One team would have students from grades 6-8 and the other from grades 9-12. Middle school students can't compete on the high school team.

31. Students below grade 9 are not eligible to compete at the FAMAT State Convention and the National Convention.

Instructions for Creating Student ID #s AND Enrolling Students Online at **floridamao.org**

To enroll online, go to **floridamao.org** and log on the first time using your 4-digit school ID number and your password from last year. If your school is new to FAMAT or a school with a new ID number, e-mail Brian Holt at **floridamao@gmail.com** for your ID number.

Each student ID # must consist of 9 digits. The digits are defined as follows ("d" means digit) :



Let $d_1d_2d_3d_4d_5d_6d_7d_8d_9$ be a student ID #.

d_1 will be the Region number in which your school resides (1, 2, 3, 4, or 5)

$d_1d_2d_3d_4$ will be your school number. $d_1d_2d_3$ will remain the same for most high schools with d_4 as zero.

$d_5d_6d_7$ is a students' unique number. No two of your students should have the same number in these positions to avoid scoring problems.

d_8 is the division number. Students are placed in divisions by their current mathematics class. Use the following numbers:

Algebra I	1
Geometry	2
Algebra II	3
Pre-Calculus	4
Calculus	5
Statistics	6

d_9 is the team number a student is on. A last digit of "0" means the student is competing as an individual (not on team), "1" means the student is on team one, and "2" means the student is on team two.

Students competing in the Statistics division must be assigned two ID numbers. The Statistics ID number will have 6 as the eighth digit. The second ID number is for the other division the student is eligible for. The Statistics number will not be used at the State Convention. Students paying for two individual tests at a Regional or Statewide Competition need to use the appropriate ID number for each test. Students competing in two divisions (like Geometry and Algebra II) must be assigned an ID number for each division.

For example, John Smith is a first team Calculus student at Chilis High School, which has a school ID of 1810. John's ID number is 181000151.

Mary Jones is an individual Algebra I (not on team) student from Chilis High School. Her ID number is 181012310.

Sample printout of FAMAT student ID #s from floridamao.org



Student Name	Division	Team 1 ID	Team2 ID	No Team ID
Lee,Eun	Geometry	181001621	181001622	181001620
Lin,Zechariah	Geometry	181007421	181007422	181007420
Belcher,Chase	Algebra 2	181000331	181000332	181000330
Patel,Niral	Algebra 2	181002131	181002132	181002130
Paterson,Ken	Algebra 2	181002231	181002232	181002230
Wang,Jessica	Algebra 2	181003131	181003132	181003130
Hoekman,Daniel	Pre-Calculus	181008841	181008842	181008840
Jiang,Marshall	Pre-Calculus	181008941	181008942	181008940
Dunn,William	Calculus	181004251	181004252	181004250
Findley,Jack	Calculus	181004451	181004452	181004450
Jiang,Kejing	Calculus	181004651	181004652	181004650
Jiang,Kejing	Statistics	181004661	181004662	181004660



Note that Jiang, Kejing is enrolled in both Calculus and Statistics.

FAMAT REGISTRATION and ANSWER SHEET BUBBLING INSTRUCTIONS

When competing, at registration,

1. You **MUST** turn in the printout of on-line registration with competing students' names highlighted. In addition, all students must have a bubbled answer sheet for each test.
2. **Student Answer Sheets** - Everyone must do this whether you enrolled online or not. Each student must have an answer sheet found under Downloads on the website with their ID# written in AND bubbled, left justified, name in the name blank, division in the subject blank, school name in the date space. The ID# should be the one from the online enrollment printout appropriate for the student.
3. **9th digit of the ID#** - If a student is on the 4 member team for your school, whether it be the first team or second team (if your region is seating 2 teams), the 9th digit should be a 1 if the student is on the first team and a 2 if the student is on the second team. If a student is not a member of any 4-member team, the 9th digit should be 0.
4. **Statistics Division students** not on team must use their Statistics division ID number when taking the Statistics Individual test and their other division ID number when taking their other Individual test. If on team, the student should use their Statistics ID number.
5. Print scantrons from your downloaded copy from the website.

FAMAT FALL INTERSCHOOL TEST October 27-November 3, 2021

The fall interschool test is a test that everyone from your school may work on together. This test was originally developed to help members of each FAMAT chapter get to know each other. The test can be worked on by your group from October 27-November 3. The test and answer sheet will be available online for you to download at 12:01 a.m. on October 27 at: floridamao.org

You may make copies for your “Mathletes” to work on at home or at school. You may refer to books, other individuals, or whatever to solve each question.

The answer sheet is to be emailed to the following: robsnow23@yahoo.com
by 11:59pm EST November 3.

POSTER TOPIC: The 2nd to last question is to give a suggestion(s) for the topic for the poster for the 2022 FAMAT State Convention. This question will not count as part of the test. Members of the FAMAT Board will review all suggestions and choose the topic. Schools may submit more than one poster topic suggestion. Please submit all poster topic ideas to the email below.

T-SHIRT/PROGRAM COVER: The last question is to design a cover/t-shirt design for the 2022 Florida Association of Mu Alpha Theta State Convention. Black and white, camera ready, pictures may be placed on standard white copy paper. A second copy of the same picture with suggested colors can also be turned in. This question will not count as part of the test, but will carry with it financial rewards for the winning schools. The school whose design is selected by the FAMAT Board for the front of the State Convention t-shirt will receive two free student registrations for the State Convention while the school whose design is selected for the back of the t-shirt will receive one free student registration. Schools may submit more than one design. Please send a PDF file or JPEG file for each design to the email below. Please save each PDF or JPEG file in the format described below.

The poster topic and t-shirt/program logos must be emailed by 11:59pm November 3 to:

For the poster topics:
Rob Nichols
email: famatconvention@gmail.com
subject: 2021 State Convention Poster Topic Suggestions

For the t-shirt designs
Rob Nichols
email: famatconvention@gmail.com
subject: 2021 State Convention T-Shirt Designs
Please remember to include contact information when sending your email.

For each t-shirt design attachment, please save it as:
SchoolName_ArtistName_BW_File# (change BW to Color for the color file).

Solutions will be available at the site listed above on November 5. Schools will have until November 10 to submit disputes. Please email any disputes to: robsnow23@yahoo.com by 11:59pm November 10.

Winners of the Fall Interschool test will receive TROPHIES at the FAMAT State Convention.

SUSAN HILLER/HELEN DOSTAL/BARBARA NUNN/ TESTS

WEDNESDAY, DECEMBER 1, 2021

Use only FAMAT NO TEAM ID #S

These tests were developed to encourage schools to compete in FAMAT competitions and to enroll online. Only FAMAT full and associate members may take the Dostal and Nunn tests. All Algebra 1 students may take the Hiller test. Although the tests are given to individuals, this is a SCHOOL AWARD. Awards will be given to the top three schools with the highest cumulative score of the top 6 students for each test.

ONLY schools that have done the following will receive the tests by email several days before the test is to be given:

1. paid dues to FAMAT by the November 1 deadline AND
2. have enrolled students online at floridamao.org (see Instructions for “Creating student ID #s” and enrolling online included in this packet)

The Barbara Nunn test is for Theta level students – students who are enrolled in Algebra II and/or Geometry. The test content may include topics from the following areas: Algebra I, Algebra II and Geometry.

The Helen Dostal test is for all other students. The test content may include topics from the following areas: Algebra I, Geometry, Algebra II, elementary set theory, matrices, statistics, and probability.

The Susan Hiller test is for all students that are currently enrolled in Algebra 1. This means that Middle Schools may participate in this test along with High Schools. The test content will include topics from Algebra 1.

All tests have 30 multiple-choice questions – A, B, C, D, and E. NOTA. Four points will be awarded for a correct answer, -1 for an incorrect answer, 0 for no answer. NO CALCULATORS.

If you have not received your copies of the Hiller, Dostal, and Nunn tests by Saturday, November 27, contact Rob Snow at robsnow23@yahoo.com

BEFORE THE TEST DATE

- Duplicate as many copies of each test as necessary.
- Arrange the administration of the test – 60 minutes testing time. There is to be one testing time for each test. However, all tests may be given at the same time.
- Acquire answer sheets. You can use the answer sheet found under Downloads on the website.
- Print FAMAT STUDENT ID#S to be used on the answer sheets. These can be found online at floridamao.org under your school name, state column. Use the “No Team IDs” for these tests.
- Encourage all members of your schools’ chapter to participate.

DIRECTIONS FOR ADMINISTERING TEST

- Before you begin reading, pass out answer sheets and tests face down.
- Students, today you will be taking the Barbara Nunn/ Helen Dostal/ Susan Hiller mail-in competition tests. Although you will be taking this test individually, it is a SCHOOL AWARD. Awards will be given to the top five schools with the highest cumulative score of its top six students for each test.
- The tests are individual competition tests with 30 multiple choice questions with answers A, B, C, D, and E being NOTA, None of the Above.
- Questions are scored: 4 points for a correct answer, 0 points for an answer left blank, and -1 for a wrong answer
- NO CALCULATORS are permitted.
- There is a 60-minute time limit.
- Ties will be broken using the sudden death method – see glossary.
- Scores will be announced.
- Plaques will be presented to the three highest placing schools for each test at the state convention for the tests.
- You will be using your FAMAT ID # (No Team ID #).
- On your answer sheet fill in the following:
Name blank - student name, printed
Subject blank - name of test - Dostal or Nunn or Hiller
Date blank - School name, printed
ID # - use FAMAT ID# (No Team ID #), bubbled left justified
- Are there any questions? Begin. Time students – they have exactly 60 minutes of working time
- Give warnings when there are 15, 5, and 1 minute(s) left.
- At the end of 60 minutes, say pencils down. Collect the answer sheets only.

AFTER THE TEST

- Separate answer sheets by test – Dostal, Nunn, or Hiller. **PLACE THE ANSWER SHEETS IN SEPARATE ENVELOPES OR PLACE THREE ENVELOPES IN ONE LARGE ENVELOPE** and mail.

- Send to: Address TBD in November POSTMARK DATE: December 2, 2021

Do not mail your answer sheets via registered mail or delivery confirmation. This complicates matters.

- Answers will be posted at [_floridamao.org](http://floridamao.org) on December 3, 2021.
- *Answer sheets not separated or improperly labeled will be scanned with the DOSTAL test.*
- Disputes must be e-mailed on or before December 6, 2021 to Rob Snow at: robsnow23@yahoo.com

Mu Alpha Theta - Proctoring Instructions for Individual Tests

Before Testing Begins (at _____)

1	Count the tests provided in the envelope. There should be 28 of them, including 3 extra tests to be used as substitutes in case of defects.
2	Prepare your timekeeping device. You should either have a watch/phone or a clock in the room. The students will have exactly 60 minutes for the test. To ensure consistency across the competition, do not allow any extra time at all.
3	Write the name of the test on the board.
4	Prop open the door and allow students to enter. Remind students as they enter that they are not to sit adjacent to students from their own school.
5	If the room reaches capacity, then tape the "ROOM FULL" sign onto the outside of the door and close the door.
6	If the room does not reach capacity, then close the door but do not tape the sign up. Students will be allowed to enter the room up to 10 minutes late. If late students arrive, quietly hand them a test and allow them to take a seat. They do not get any extra time.

As Testing Begins (at _____)

Do	1	Tell the students that you are about to read the directions and there is to be no further talking.
Read	2	This is the _____ individual test. No two students from the same school are to sit adjacent to each other.
Read	3	In the <i>NAME</i> blank of the answer sheet you should print your name. In the subject blank, print the proper division name: Algebra I, Geometry, Algebra II, Statistics, Pre-Calculus, or Calculus. In the date space, print your school name - no abbreviations. Be certain your ID# is correct, left justified, and bubbled properly. The first four digits should be your school number, digits 5-7 are your unique student number for your school, the 8 th digit is your division, and the 9 th digit is your team number. Remember, misbubbling your ID number can lead to your disqualification.
Do	4	Walk the aisles and check to see that the ID numbers on scan sheets are filled in while at the same time checking improper seating among students by checking their school names. Students may come in up to 10 minutes late; however, their testing time ends at the time set for everyone in the testing room.
Read	5	The following are the directions for taking this test: A. You may not leave this room until the testing time of one hour has passed. B. Headphones, beepers, cell phones, or electronic devices (including calculators except for Statistics students) are not allowed. C. WATCHES, Sunglasses and hats are not to be worn. D. In the Algebra I, Geometry, Algebra II, Pre-Calculus and Calculus divisions, students may not use any calculators. On the Statistics test, students may use any calculator without a QWERTY keyboard. E. At the end of the testing session, you are to hand in only the answer sheet. You may write on the test. Use the blank pages for scratch paper. You may keep your copy of the test. F. Ties will be broken by the sudden death method beginning with question #1. Ask your sponsor about this method if you do not know what it is. G. The scoring will be 4 times the number of questions you answer correctly minus one point for each incorrect answer. A response that is left blank will count as zero points. H. Answers will be posted (read) at the end of the test. I. The dispute center will be held open 15 minutes after the test is over. You will need to know your student ID to submit disputes. If you do not know your student ID, then you should write it on the front cover of your test once you receive it.

		<p>J. There will be three warnings for the end of the test: at the 15, 5, and 1 minute marks.</p> <p>K. Proctors will not answer any questions, explain, correct, or clarify in any way any part of this test. Proctors will only be able to exchange a defective test.</p> <p>L. If you need the proctor's attention, please stays seated and raise your hand. The proctor will come to you.</p>
Read	6	<p>Please listen carefully to the clarification of unique test item issues.</p> <p>A. If a student believes a test item is defective, select E. NOTA and file a dispute explaining why.</p> <p>B. In the case that a question has multiple correct answers, all correct answers will be counted as correct. DO NOT select E) "NOTA". This applies even if one of the answers is in a more simplified form than another. If your answer is (is not) one of the choices, write a dispute explaining why your answer should also be accepted.</p> <p>C. If AN ANSWER CHOICE IS NOT COMPLETE choose E) "NOTA." For example, when solving a quadratic where there should be two solutions, a choice providing only one solution should NOT be chosen. On the other hand, if a questions asks for "A solution ... " a choice providing only one solution would be correct.</p> <p>D. The phrase "two numbers" is to be interpreted as allowing for two numbers to be equal. The phrase "two distinct numbers" means find two different numbers.</p> <p>E. If a student files a dispute claiming what the dispute center believes is a unique or highly unusual interpretation of the problem, the dispute center may award that student credit while allowing the intended answer for all other students.</p> <p>F. Students should select E. "NOTA" ONLY if they believe either there is no correct answer or the question is seriously flawed.</p> <p>G. Unless a question asks for an approximation or a rounded answer, give the EXACT answer.</p>
Read	7	<p>Please clear your desk, of everything except your answer sheet, and your writing instruments. Do not open the test until you are instructed to do so.</p> <p><i>(read only if this is a Statistics test):</i> Statistics students can have a calculator on their desk as well. No calculator covers may be on the desk.</p>
Do	8	Distribute the tests, one to each student. Students may not open the tests yet.
Read	9	Are there any questions? <i>(pause for questions)</i> You have 60 minutes to work. Begin.
Do	10	Note the exact start time. Write the ending time on the board.
Do	11	As students are working, circulate occasionally to keep kids alert.
Do	12	Give the 15 minute, 5 minute, and 1 minute warnings when appropriate.
Read	13	<i>(when exactly 60 minutes have passed)</i> Time is now up. Please put all pencils down.
Do	14	<p>Have students pass the answer sheets to the front.</p> <ul style="list-style-type: none"> • Ensure that all answer sheets are facing in the same direction. • Count the answer sheets and ensure that you have an answer sheet for every student. <p>Place the answer sheets in the envelope provided.</p>
Read	15	<p>Please gather all your personal items. Deposit any garbage in the garbage can as you exit the room. <i>If answers were provided to you, then read the answers to the students. If answers were not provided to you:</i></p> <p>Answers will be posted in the _____ area.</p>
Do	16	Return the manila envelope to the location where it was picked up. Let the collector know how many students tested in the room.

Mu Alpha Theta Team (Bowl) Proctor Instructions

- Read 1.** Fill out all 15 answer sheets completely. Remember to write your school name, 4-digit school ID number and your team number. Do not use abbreviations.
- Do 2.** Take roll. Each team receives 4 extra points for Question 1 for attending.
- Read 3.** The following are the directions for answering the team question:
- a. You will have 4 minutes to answer each question.
 - b. The scoring will be: 16 points for a correct response in the 1st minute, 12 points for a correct response in the 2nd minute, 8 points for a correct response in the 3rd minute, 4 points for a correct response in the 4th minute. A sliding scale will be used.
 - c. Once your hand has been raised with the answer sheet, it must stay up. If you put your hand down, your answer will be disqualified for that question.
 - d. Your answer must be submitted on the official answer sheet that has been correctly filled out. Otherwise your answer will be disqualified.
 - e. Your answer must be in the specific form that the question asks for.
 - f. If not otherwise noted, the answers should be in one of the following generally accepted forms:
 - denominators rationalized
 - simplest radical form
 - fractions, improper fractions, or mixed numbers in simplest form
 - equations should have integral coefficients if in standard form
 - g. No units are necessary
 - h. Calculators are not allowed in any division except Statistics. Statistics participants may use any non-qwerty keyboard calculator.
 - i. Headphones, beepers, cell phones, or electronic devices are not permitted.
 - j. WATCHES, Sunglasses and hats are not to be worn during the competition.
- Read 4.** There will be a total of 12 questions during this team competition.
- Read 5.** Subtotals will be read after the 5th and 9th questions. Final scores will be after the final question.
- Read 6.** Disputes will be handled in the dispute center at scoring for incorrect totals for 15 minutes after the end of this session.
- Do 7.** Have runners pass out folders of questions unless they are already on the table. As they are doing this continue reading.
- Read 8.** Do not open these packets or remove questions from the packet until I give the signal. Any team removing questions before the signal will be disqualified from this competition.
- Read 9.** Is there any team that does not have a folder of questions?

(Team proctor instructions con't. on next page)

- Do 10. Get ready to set the timer.**
- Read 11. Remove question # XXX. Begin. (Do this in succession – do not give competitors time to “play” with the questions once they are removed from the packet.)**
- Read 12. Begin minute 2.**
- Read 13. Begin minute 3.**
- Read 14. Begin minute 4.**
- Read 15. 15 seconds.**
- Read 16. Stop. Are all answers in?**
- Read 17. The answer to question # XXX is _____.**
- Do 18. Repeat steps 7-17 for each remaining question. Announce scores after questions 4 & 8.**
- Read 19. Students, clear your tables of all paper except the folder. Deposit trash in the cans provided.**
- Read 20. Final team totals are as follows:**

**FAMAT APPLICATION FOR 2021-2022 MEMBERSHIP
HIGH SCHOOLS ONLY (Grades 9-12)**

THIS INFORMATION MUST BE FILLED OUT ONLINE.

Postmark Deadline – November 1, 2021



Please check the appropriate boxes.

- ☐ *We have (or have applied for) a National Charter.* National Chapter # _____
- ☐ *We have subscribed to FAMAT FORUM*
- ☐ *We have received and read the Sponsors' Competition Reference Guide. Download from floridamao.org.*
- ☐ *We are current with our National dues.*

Is this application a renewal or an update for the current year? (circle one) FAMAT ID _____

Is this application for a new school? YES NO (circle one)

School Name: _____ County _____ Region _____

Address: _____ Phone: (____) ____-____ FAX: (____) ____-____

City: _____, FL ZIP CODE: _____.

Lead Sponsor : _____ Home Phone : (____) ____-____

E-Mail : _____

School Hours: FROM _____ am to _____ p.m. Best Contact Time - School: _____ Home _____

FAMAT School dues are renewable annually according to the following schedule:

1 - 10 students\$70.00

Over 10 students \$7.00 per student

DUES PAID: \$70.00 OR TOTAL NUMBER OF STUDENTS x \$7.00 = \$ _____ .00

Please make checks payable to the "Florida Association of Mu Alpha Theta" or to "FAMAT". Student membership updates of this renewal application form will be accepted until March 1 of the current school year. **DO NOT SEND RENEWAL APPLICATION WITHOUT PAYMENT.** Mail the payment along with the form by November 1 (the due date) of the current school year to:

Attn. : Kim Woolfenden
14220 N. Hwy 301
Thonotosassa, FL 33592

E-mail : woolfmath@aol.com

For questions and a prompt response e-mail Kim at E-mail: woolfmath@aol.com

DO NOT SEND ANYTHING "Special" delivery. It will NOT be picked up from the post office.

Look for payments received on your FAMAT HOME page. (The one YOU log into)
You will receive an e-mail receipt. You may print as a receipt. Also look for e-mails through the forum as to which payments have been received.

MIDDLE SCHOOLS ONLY (Grades 6-8)
COMPETITION FEE FOR 2021-2022

Postmark Deadline – November 1, 2021



THIS INFORMATION MUST BE FILLED OUT ONLINE.

Please check the appropriate boxes.

- ☐ *We have subscribed to FAMAT List serve.*
- ☐ *We have received and read the Sponsors' Competition Reference Guide. Download from floridamao.org.*

Is this application a renewal or an update for the current year? (circle one) FAMAT ID _____

Is this application for a new school? YES NO (circle one)

School Name: _____ County _____ Region _____

Address: _____ Phone: (____) ____ - ____ FAX: (____) ____ - ____

City: _____, FL ZIP CODE: _____.

Lead Sponsor : _____ Home Phone : (____) ____ - ____

E-Mail : _____

School Hours: FROM _____ am to _____ p.m. Best Contact Time - School: _____ Home _____

FAMAT Middle School dues of \$70 are renewable annually.

Please make checks payable to the "Florida Association of Mu Alpha Theta" or to "FAMAT". Student membership updates of this renewal application form will be accepted until March 1 of the current school year. **DO NOT SEND RENEWAL APPLICATION WITHOUT PAYMENT.** Mail the payment along with the form by November 1 (the due date) of the current school year to:

Attn. : Kim Woolfenden
14220 N. Hwy 301
Thonotosassa, FL 33592

E-mail : woolfmath@aol.com

For questions and a prompt response, e-mail Kim at E-mail: woolfmath@aol.com

DO NOT SEND ANYTHING "Special" delivery. It will NOT be picked up from the post office.

Look for payments received on your FAMAT HOME page. (the one YOU log into) You will receive an e-mail receipt. You may print as a receipt. Also look for e-mails through the forum as to which payments have been received.

FAMAT REGION CROSSOVER REQUEST



THIS FORM IS TO BE SUBMITTED ONLINE BY DECEMBER 1

This form is the official request form for a school wishing to compete at another regional site other than the one they are assigned for a particular regional date. A request for change can only be considered for a school submitting this form based upon a hardship (i.e. extreme variance in distance). This request must be submitted to the President of FAMAT **by December 1** of the year prior to the regional competition, and the president will make the decision in the name of the FAMAT Executive Board. If you submit information by e-mail be sure to include all information requested on this form.

Please PRINT or TYPE all information.

Date request submitted _____

Name of School: _____

Lead Sponsor's name : _____

Lead Sponsor's E-mail Address: _____

School address: _____ City : _____ Zip : _____

Lead Sponsor's Work Phone : (____) _____ Home Phone : (____) _____

Date of regional competition for crossover: January February March

Region assigned: I II III IV V Site _____

Miles to assigned Regional test site _____

Region desired: I II III IV V Site _____

Miles to desired Regional test site _____

Approximate number of students involved _____

Other explanation of request _____

Action taken by president of FAMAT _____ approved _____ disapproved

Signature of president

Date

FAMAT COMPETITION ASSESSMENT FORM



(Use only after you HOST a competition.)

PLEASE mail assessment fees within 2 weeks.

Your Region: 1 2 3 4 5

Date of Competition: _____

Name of Host School: _____

To calculate the amount to send to FAMAT, complete the following steps :

- 1) Total number of individual tests registered for: _____
- 2) Multiply line 1 by \$1.00 for Regional or Statewide: _____
- 3) **TOTAL to send to FAMAT from line 2:** _____

Make check payable to “FAMAT” or “Florida Association of Mu Alpha Theta” and send payment and completed forms (this page and the next page) within TWO WEEKS following the competition to :

**Kim Woolfenden
FAMAT Treasurer
14220 N. Hwy 301
Thonotosassa, FL 33592**

For questions and a prompt response, email Kim at: woolfmath@aol.com

FAMAT Florida Tax ID Number: 65-0069925

Please complete the Financial Report form on the next page.

FAMAT COMPETITION FINANCIAL REPORT

DATE _____
REGION _____



(Use only after you HOST a competition.)

Number of individual test registrations: _____

Number of schools attending: _____

Cost of awards (trophies): _____

Cost of copying (printing): _____

Cost of paper: _____

Cost of school personnel: _____

Cost of Student Delegates' lunch
(Statewide Competitions only): _____

Cost of security: _____

Miscellaneous costs: _____

FAMAT assessment: _____

TOTAL INCOME: _____

TOTAL EXPENSES: _____

TOTAL PROFIT (LOSS): _____

Mail within TWO WEEKS of your competition.

Official Common Dispute Document

Geometry

- 1) Given a rectangle (with length L and width W), calculate the area of a surrounding border of uniform width x . The solution: $2Lx + 2Wx + x^2 \cdot \pi$
- 2) Unless explicitly stated otherwise by the author of a test:
 - a) No diagram may be assumed to be drawn to scale.
 - b) The definition of a trapezoid is exclusive (which means a trapezoid by definition has **exactly** one pair of parallel sides - parallelograms **are not** trapezoids.)
 - c) When an object is stated to be a given shape, it is that shape and is not a degenerate case. A circle may not be a point, a quadrilateral may not be a triangle, etc.

Algebra

- 1) The y , or x -intercept is to be interpreted as asking for the y (or x) coordinate (not the ordered pair).

Pre Calculus

- 1) All inverse trigonometric functions, unless otherwise stated, all denote the function with its **traditional** restricted range.
- 2) In regards to the phase shifts of trigonometric graphs, on team questions, answers should voice the shift that is closest to 0 (unless otherwise specified). That is to say, consider a team question that has one part that reads: B = the phase shift of $\sin(x + P)$; the calculations for the correct answer ought to use $-P$ as the shift, not a positive coterminal shift. For individual questions, it would be prudent to specify the direction of the shift rather than using a positive or negative sign (e.g. P units to the left, versus $-P$).

Calculus

- 1) Consider a function $f(x)$ whose derivative is greater than zero for all real values of x on the interval $[a, \infty)$, except for a single point at $x = b$ where the derivative is equal to zero. Is this function increasing on the interval $[a, \infty)$ or $(a, b) \cup (b, \infty)$?
Solution: $[a, \infty)$ because the definition for a function to increase on an interval is that for all b and c , $c > b$, on the interval, $f(c) > f(b)$, which the function described above obeys (assuming it is differentiable everywhere on the interval). However, $f(x)$ is not increasing at the point $x = c$.
- 2) $0^0 = 1$ (not “undefined”) if asked in the form: “What is 0^0 ”.
 - a) This question is only subject to be asked in the Calculus division.
 - b) Of course, in a limit-based context, a form of 0^0 may take on values other than 1.
- 3) When calculating the maximum error, use of differentials is not implied (the use of which must be stated within the question). In dispute, cite Taylor’s theorem.
- 4) Solutions to limits that diverge to infinity should be written as $\pm\infty$, as appropriate. When a limit does not converge to a finite real number and does not diverge to infinity, then the solution

should be written as DNE. Examples: $\lim_{x \rightarrow \infty} x^2 = \infty$, $\lim_{x \rightarrow 0} \sin\left(\frac{1}{x}\right) = DNE$, $\lim_{x \rightarrow \infty} (-1)^x = DNE$

5) The notation for the nth derivative of the function f(x) is to be written with parentheses surrounding the n.

a) Correct format: $f^{(n)}(x)$

b) Incorrect format: $f^n(x)$, which is to be interpreted as the function raised to the nth power

6) A function which is not integrable on an interval A is not integrable on any interval B, where B contains A. I.e. no “the negative signs cancel” arguments.

Statistics

1) Given a deck of cards, face cards only include Kings, Queens and Jacks. (Aces are not included in the subset).

2) Consider a set of numbers ordered in increasing order. Calculate the IQR.

a) Even number of elements in the set: Solution: Q_1 is calculated based on the lower half of the set while Q_3 is calculated based on the upper half.

b) Odd number of elements in the set: Solution: Q_1 and Q_3 are calculated as stated above with the exclusion of the Q_2 (median of the set).

3) A standard deck of cards is to be assumed as a standard 52-card deck.

4) A “die” is to be assumed as a fair 6-sided die unless otherwise stated.

5) Unless otherwise stated (or with information to suggest otherwise), a set of data is to be treated as a sample set.

Number Theory

1) For a given integer, find the set of factors.

a) Positive Integer Solution: The set of positive integral factors.

b) Negative Integer Solution: The set of positive integral factors and -1.

General/Overall

1) Concerning Pascal’s triangle, the “first row” is considered to be “Row 0”, which is a 1

2) A question involving possible rounding should specify and abide within the question; never round unless instructed to do so (exact answers).

3) A student should not have to assume what the test meant to say in the case of a misprint.

4) Unless there are parentheses, \sum or \prod notations only include the successive terms that

contain the counter-variable. Take $\sum_{n=a}^n n + c$ (or $\prod_{n=a}^b n + c$):

Solution: this is to be interpreted as $[a + (a + 1) + \dots + (b - 1) + b] + c$. This is **NOT TO BE INTERPRETED AS** $[(a + c) + (a + c + 1) + \dots + (b - 1 + c) + (b + c)]$. The correct notation for

the latter of these two expressions is $\sum_{n=a}^b (n + c)$.

FAMAT GLOSSARY

Alpha division - At the State Convention, this division is for students in grades 9-12 who have completed Algebra II and Geometry and have not been enrolled in any Calculus course. See eligibility sheet.

Associate members – Students in grades 9-12 who have completed two semesters of Algebra I with a grade of B or better and are enrolled in a third semester of advanced mathematics.

Barbara Nunn Test – This test given in December is for Theta level students who have not been enrolled in a course higher than Algebra II or Geometry. The test consists of 30 multiple choice questions on topics from Algebra II and Geometry. Only schools that have paid dues and enrolled online by November 1 will receive this test in the mail. Directions are available in this guide. This test is given on the same day as the Susan Hiller and Helen Dostal Tests.

calculator use – Calculators may not be used in any division except Statistics. In the Statistics division, only College Board approved calculators (no QWERTY keyboard) may be used. No calculators may be used on the History of Math test at State. Statewide Competition hosts may make their own calculator rules.

Calculus division - At the state convention, this division is open to all students in grades 9-12. See eligibility sheet.

crossover - Schools can request to attend Regionals in other regions when there is a hardship. Crossover forms are available in this guide. Due date is December 1.

disputes – now known as request to resolve disagreement with an announced answer, either verbally during a team round or written or posted after an individual round, which is written and filed within a prescribed time period after the completion of an event

divisions - Algebra I, Geometry, Algebra II, Statistics, Pre-Calculus, and Calculus, at Regionals and Statewide Competitions. Theta, Alpha, and Calculus are the levels at the State Convention. A division competition consists of two parts : an individual test and a team round. Teams consist of 4 or less people.

division score – the sum of two scores, the school's four individual scores of students assigned to the team and their team score

eligibility for Regionals/Statewide Competitions - Students take one specific division test depending on what math class they are enrolled in. See eligibility sheet included in this guide.

eligibility for State Convention - Schools attending the FAMAT State Convention must be current members of National Mu Alpha Theta and FAMAT. Each student attending is to be a full or associate member of both organizations. See eligibility sheet.

enroll – Entering student FAMAT ID #s online at floridamao.org. See pages on creating FAMAT Student ID #s and enrolling online.

Executive Board - Governing body of FAMAT.

Fall interschool test - A test that all members of a FAMAT chapter may work on together and submit one set of answers. Information is available in this guide.

FAMAT - Florida Association of Mu Alpha Theta, the governing body for Mu Alpha Theta in the state of Florida.

FAMATCGRAPH - FAMAT competitions guidelines, rules and procedures handbook, available on-line at floridamao.org.

FAMAT Statewide Competitions - Statewide Competition sponsored by FAMAT, tests written by FAMAT. Students at the host schools may compete. These competitions occur only when no school volunteers to host a Statewide Competition. Schools are asked by the FAMAT Board to host this competition.

FAMAT forum- An online message center/communication system. See information in this guide on "Sponsor's Quick Guide" pages.

FAMAT Sponsor's Competition Reference Guide - This guide has all information necessary for competing in FAMAT sanctioned competitions.

FAMAT State Convention - End of year competition held in the spring. Information packet is online at floridamao.org . Only FAMAT member schools and dues paying associate and full members may attend.

full members - Students in grades 9-12 who have completed four semesters of college preparatory mathematics, are enrolled in a more advanced mathematics course or have completed the highest course offered at the school, have maintained a B or better average in mathematics.

Helen Dostal Test - Test for Pre-Calculus students and above at member schools that have paid dues and enrolled online by November 1. The test consists of 30 multiple choice questions. Directions and test content are available in this guide. This test is given on the same day as the Susan Hiller and Barbara Nunn Test.

host - Contact person at each school that is hosting a Regional or Statewide Competition.

individual – student taking the multiple choice test

Statewide Competition - Statewide Competition are open to all schools. At a Statewide Competition the host school is responsible for all test writing. Students at the host school may not compete in the competition.

join - Paying dues and submitting member names to FAMAT. See FAMAT membership form in this guide.

National Mu Alpha Theta - National Mathematics Honor Society, link to this at www.famat.org, or go to the National Website at www.mualphatheta.org. You MUST be a member of National Mu Alpha Theta to become a member of FAMAT.

Non-FAMAT Fees - Schools that are not FAMAT members must pay a \$70 fee at each Regional and Statewide Competition in addition to the registration fee. New schools are exempt from this fee for one year.

Online requirements – signing up to attend a competition. Registration is done by completing the appropriate forms and sending it along with fees to the host of the event. Also see hosts/dates/postmark deadlines

postmark deadline - Date when items are to be postmarked.

OWERTY keyboard – a keyboard that is laid out like a computer

regional competitions - Regional competitions are open to schools that are located within that regional area. A school may attend a regional competition outside their region only if it has received prior approval by submitting a Crossover Request Form submitted to the FAMAT President. If a Regional competition is not scheduled for your region on a specified Regional date, schools may crossover to another region without filing a region crossover request. The writing of competition questions for Regional Competitions is coordinated through FAMAT. On the day of the Regional Competition, the same competition questions and tests are used at all regional sites around the state.

regional directors - Contact person, one for each region, elected at state convention. See page 3.

regions - There are five regions, divided by counties, in the state of Florida for competitions. **Region I** - Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Jefferson, Leon, Liberty, Madison, Okaloosa, Santa Rosa, Taylor, Wakulla, Walton, Washington.

Region II - Alachua, Baker, Bradford, Citrus, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Lafayette, Levy, Marion, Nassau, Putnam, St. Johns, Suwannee, Union, Volusia.

Region III - Brevard, Indian River, Lake, Martin, Okeechobee, Orange, Osceola, Seminole, St. Lucie, Sumter, Palm Beach (north of Lake Worth Road).

Region IV - Charlotte, DeSoto, Glades, Hardee, Hernando, Highlands, Hillsborough, Lee, Manatee, Pasco, Pinellas, Polk, Sarasota.

Region V - Broward, Collier, Hendry, Miami-Dade, Monroe, Palm Beach (south of Lake Worth Road)

registration fees - Fees paid to the hosting school when participating in a competition.

\$10 per student if postmark deadline (14 or more days before the event) is met, \$20 late fee (3-13 days before) with host's written permission. Sponsors will be expected to pay for all students that have been registered whether or not they attend the competition. Schools showing up on the day of the competition with no prior notification will not be able to compete. Also see crossover fees instructions and creating student ID #s and enrolling online.

student ID #s - Numbers issued by sponsors to all students competing in FAMAT competitions. The numbers are used in the scoring program to associate a student's name with his/her unique FAMAT ID#.

These numbers can be enrolled online at floridamao.org

sudden death –

- I. Ties will be broken on the individual test by the following sudden death method:
 - a. Compare the answer sheets beginning with question 1.
 - b. Find the first two answers that are different and compare those as follows:
 - i. a correct answer is better than a blank or incorrect answer
 - ii. a blank answer is better than an incorrect answer
 - iii. If the papers are identical, the students will be called down at the awards ceremony before any of the awards for their division are given. Students involved will be given an easy question of at most one minute in length. The first correct answer will break the tie. This process will continue until the tie is broken.
 - iv. If the tie is for the last award, the students will be notified what place they are competing for, otherwise, they will not be informed.
- II. Ties will be broken for the division scores using the sudden death method as follows:
 - a. Compare the final team totals
 - b. Compare team scores per question by points until there is a discrepancy. The highest number of points on that question breaks the tie.
 - c. Compare individual scores with the highest scoring team member.
 - d. Use the procedure outlined in 23 above.
- III. Ties will be broken for the sweepstakes award by the sudden death method as follows:
 - a. Compare the highest division both schools counted toward the sweepstakes in the following order: Calculus, Pre-Calculus, Statistics, Algebra II, Geometry.

Susan Hiller Test - This test open to all Algebra I students (both high school and middle school). The test consists of 30 multiple choice questions on topics from Algebra 1. Only schools that have paid dues and enrolled online by November 1 will receive this test in the mail. Directions are available in this guide. This test is given on the same day as the Helen Dostal and Barbara Nunn Test.

sweepstakes awards – sum of the top 4 division t-scores for Geometry, Algebra II, Statistics, Precalculus, and Calculus for Regionals and Statewide Competitions. See the State Convention packet to determine how the sweepstakes standings are determined for that event.

Theta division - At the state convention, this division is for students in grades 9-12 currently enrolled in Geometry or Algebra II. See eligibility sheet.

Traditional scrapbook – the cover and pages must open like a book. The spine is not considered part of the cover. Do not submit the scrapbook in boxes, suitcases, or anything that detaches from the actual scrapbook.

www.floridamao.org - the official website of FAMAT and other important Mu Alpha Theta information, including on-line enrollment, sample tests, and competition results.