



American Mathematics Competitions

S-I – LETTER TO USA(J)MO QUALIFIER

April 2013

Dear USA(J)MO Qualifier,

Congratulations! Because of your excellent performance on the 2013 AMC 10/12 and AIME, you have qualified to take the 42nd USA Mathematical Olympiad (USA(J)MO). Your teacher will be notified shortly of your AIME score and the final cutoff levels for a USA(J)MO invitation. Since both you and your school indicated at the time of the AIME that you would accept a USA(J)MO invitation, the exam will be posted on the Internet to be downloaded each day of the exam. A trial question will be posted one week before the USA(J)MO for teachers & students to practice obtaining & downloading. Please notify your USA(J)MO Exam Manager (math teacher or mathematics department chair) that you have received this letter and immediately complete the Form S-III (along with your parent or guardian) from the USA(J)MO Teachers Manual downloaded from our website at amc.maa.org. The completed S-III Form must be SCANNED & EMAILED to amcinfo@maa.org or FAXED to 303-374-6339 (Emergency FAX # to be used only if the first number fails is 402-472-6087) or mailed so that it is received by us on or before April 24.

The USA(J)MO will be given on Tuesday, April 30 and Wednesday, May 1, 2013, in two 4.5-hour sessions each day, which are to be scheduled from 12:30pm-5:00pm EDT or equivalent in your time zone. Enclosed is an instruction sheet (Form S-II), which you should look over now and shortly before taking the exam. The USA(J)MO is a prestigious event. Only about 500 students from thousands of American Invitational Mathematics Examination participants are invited to take the USA(J)MO. The top 12 USAMO participants will be declared Winners and honored at ceremonies on June 3, 2013, at the Mathematical Association of America (MAA) Headquarters in Washington, DC.

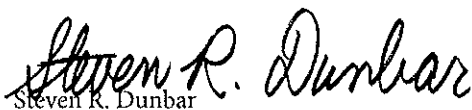
A Mathematical Olympiad Summer Program (MOSP) will be held from June 4- 28, 2013 at the University of Nebraska-Lincoln. Approximately 30 of the highest scoring USAMO participants will be invited, along with an additional (approximately) 25 ninth and tenth grade USA(J)MO participants, all expenses paid, to the 2013 program. Selection will be based on the exams administered by the committee on the American Mathematics Competitions (CAMC), primarily the USA(J)MO. This year, the International Mathematical Olympiad (IMO), will be held July 21-28, 2013, in Santa Marta, Colombia. The United States will participate with a team of 6 students, all expenses paid.

USA(J)MO Winners, and all those invited to the MOSP will be notified by telephone shortly after the USA(J)MO grading on May 10-12, 2013. Information regarding the MOSP will be sent to those selected beginning on Friday, May 17. A copy of the USA(J)MO with solutions and results (including your score) will be mailed to your USA(J)MO Exam Manager beginning on May 17. Also included will be a USA(J)MO Certificate of Participation to be presented to you.

Keep in mind that it is an achievement of the highest order merely to have qualified for the USA(J)MO. You should not be discouraged if you find problems on the USA(J)MO to be extremely challenging. A good way to prepare for the USA(J)MO and set appropriate goals for yourself is to work on previous USA(J)MO and IMO problems. Please use the Publication Order Form (from our website amc.maa.org) if you wish to order the AIME/USA(J)MO CD which includes pdfs of all the AIME (1983-2008) and USA(J)MO (1972-2008) questions and solutions.

I look forward to your participation in the USA(J)MO.

Sincerely,


Steven R. Dunbar

Director

MAA American Mathematics Competitions

USAMO

<http://www.maa.org/usamo>

USERNAME: usamo

PASSWORD: AMCLincoln

USAJMO

<http://www.maa.org/usajmo>

USERNAME: jmo

PASSWORD: amcLincoln

The Username and Password is case sensitive.

American Mathematics Competitions

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S-I

MAA American Mathematics Competitions USA Mathematical Olympiad

S-II – INSTRUCTIONS TO BE READ BY USA(J)MO PARTICIPANTS

1. The space in the upper right-hand corner of your answer sheets is for your **Student Number**. You and your USA(J)MO proctor will be informed by email of your assigned student number. The number at the top center is the **Problem Number**. Do NOT write your name or school anywhere on the answer sheets; all your papers must be anonymous at the time of the grading. Write only your Student Number and Problem Number (in a similar location) on any additional papers you hand in.
2. There are six equally weighted problems, for which you will be allowed a total of **nine hours**. You will be allowed **4.5 hours on Tuesday, April 30, 2013 (12:30pm–5:00pm EDT or equivalent in your time zone) for Problems 1, 2 and 3, and 4.5 hours on Wednesday, May 1, 2013 (12:30pm–5:00pm EDT or equivalent in your time zone) for Problems 4, 5 and 6**. Each problem should be started on the corresponding numbered answer sheet. You may write only on the front of the sheet. During each session, carefully look over all the problems. Then work on those which you can work well or start well. Concurrently, be aware of the total time you allocate to each problem.
3. You will be scored on your method of attack, clarity of reasoning, evidence of ingenuity, inventiveness, and general insight. In order to obtain full credit, all the claims in your solution must be **PROVED**. When in doubt, you should include details rather than leave them out. Examination of special cases or generalizations may lead to fruitful ideas on how to begin a problem, and partial credit may be given for constructive progress toward a solution. An unusually elegant proof or a carefully stated non-trivial extension with proof may play a role in breaking an eventual tie.
4. Your papers should be **CLEAR, CONCISE, COMPLETE**, and written **DARKLY**, keeping in mind it is a faxed copy being graded, not the original! This includes **MATHEMATICAL CLARITY, GOOD ENGLISH and LEGIBILITY**. Points will be deducted for inadequate or poorly written explanations, as well as for incorrect mathematics. Therefore, use scratch paper freely before writing the solutions you submit, and submit ONLY the final work you wish to have graded. Solutions written in languages other than English will not be graded. Please leave a 1" margin on all sides of the Answer Sheet and on any additional pages and write **DARKLY** and **LEGIBLY**, so your faxed copy can be easily read. A sharp #2 lead pencil or black ink pen scan or fax best.
5. **NO** notes, headphones, cell phones, ipods, tablet computers, books, slide rules, mathematical tables, calculators or calculator watches are allowed during the exam. The only instruments permitted are writing and drawing instruments (ruler, compass, protractor, graph paper). Students learning English as a second-language, who are taking the USA(J)MO for the first time are permitted to use a non-technical translation dictionary during the exam. However, the proctor must examine and keep the dictionary in his or her possession for the 24 hours preceding the USA(J)MO. Your solutions must be faxed to 303-374-6339 immediately at 5:00pm EDT or equivalent in your time zone each day.
6. The USA(J)MO will be administered in two sessions. Students should come prepared with a sack lunch and/or snacks because there is no lunch break during the exam (exceptions will be made for restroom breaks). Your proctor is required to be present during the entire course of the exam for your papers to be valid, but is not permitted to answer any questions about the test. You are not allowed to talk to any other student while the exam is in progress. If you feel that a problem is not stated clearly, note this on your answer sheet and try to make a non-trivial restatement of the problem. Then try to solve the restated problem.
7. You will start the exam when your proctor gives the signal. When the proctor announces **after each session** that 4.5 hours are up, **immediately cease writing**. Double-check that your Student Number on your answer sheets matches with the one assigned by email. Next, **immediately hand all Answer Sheets to the USA(J)MO Proctor (even if some sheets are blank) to be faxed to the AMC office**.
8. You may keep the problem sheets. Additional copies, a set of solutions, and the results (including your score interval) will be mailed to your Exam Manager after Friday, May 17, 2013.
9. The USA(J)MO is graded more strictly than most school examinations, so it is typical for students to overestimate the scores they will receive. The decisions of the graders are final and may not be appealed.

S-III - STUDENT/PARENT RESPONSE FORM

This Form must be completed by each USA(J)MO student and his or her parent/guardian and returned by SCAN & EMAIL (amcinfo@maa.org) or FAX 303-374-6339 (*Emergency FAX 402-472-6087*) or mailed to the AMC Office so that it is received on or before May 24th.

Complete all items carefully.

Section A- USA(J)MO Participant High School Certification

I certify that my last month as a regular high school student, either due to graduation or to early enrollment in a college degree program, will be no sooner than _____ (Month and year).

CITIZENSHIP Status: USA Citizen _____ Legal Resident of USA _____ or Canada _____

Students who are not citizens of the USA are eligible to participate in the USA(J)MO if they are attending school in the USA or Canada.

Print Clearly

Date of Birth _____ Place of Birth _____

Signed _____ Date: _____
USA(J)MO Participant

Verified by: _____ Date: _____
Parent/Guardian

Mother's full name(s): _____

Father's full name(s): _____

Parent email address(es): _____

Complete Mailing Address: _____

Home phone #: (_____) _____

Section B**USA(J)MO/IMO PARTICIPATING STUDENT (American Citizen or Legal Resident)**

I have read the "Instructions to Participate-Form S-II" and my teacher has made arrangements for me to take the USA(J)MO on Tuesday, April 30, 2013 and Wednesday, May 1, 2013.

#1 Circle one: If invited, I (am or am not) willing to attend the 2013 Mathematical Olympiad Summer Program (June 4-June 28), provided I am eligible according to the selection rules. *Students graduating in the current year are not eligible for MOSP unless they have completed Team Selection Testing.*

#2 Circle one: I (am or am not) able to present proof of United States citizenship.

Signature: _____ Date: _____

Home phone(____) _____ Email: _____

Full Name (please print, including initial): _____

May/June Mailing Address _____

_____ Zip _____

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