

Any student who is officially enrolled in high school (or below) and is taking at least one course at the school and has not graduated is eligible to take the AMC 10 or AMC 12 or AIME (with qualifying score). Please note that students in grades $11 \& 12$ can not take the AMC 10. However, students in grades $9 \& 10$ may choose which contest they take. Home School Students age 19.5 and under are eligible for AMC 12 and AIME (with qualifying score) and age 17.5 and under are eligible for AMC 10 or AMC 12 and AIME (with qualifying score).

## II. Team Score Identification

TO RECEIVE OFFICIAL"TEAM" STATUS AND AWARDS, A SCHOOL MUST HAVE AT LEAST THREE PARTICIPANTS ON A CONTEST DATE. The team score for a school is the sum of its three highest student scores and will be determined by the AMC. The score of USA and Canadian teams is used to determine National School awards. In addition, the team score is used to select the top 60 schools to identify teachers who are eligible for the Edyth May Sliffe Award for Distinguished High School Teaching. The AMC 10 and AMC 12 must be proctored by a faculty member of the participating school. A student may take only one exam on a given day but can participate on both contest dates if the school registers for both contests. The higher score will be used for awards.

## III. Braille or Large Print Exams

The AMC 10/AMC 12 time limit set by the CAMC for students who are visually impaired or learning disabled is 120 minutes. A certified teacher or a school administrator may read the questions to the student and mark the answers as directed by the student. For additional information, please call the AMC office or email amcinfo@unl.edu. The cost of a Braille or Large Print exam is $\$ 7.00$ shipping and handling plus $\$ 1.50$ per exam for the AMC 12 and $\$ 1.30$ per exam for the AMC 10. They are mailed separately and must be ordered by January 15th.

## IV. Preliminary Instructions for Administering the AMC 10/AMC 12

1. Inform students far in advance about the date for the AMC 10/AMC 12 and obtain a supply of No. 2 lead pencils.
2. Hand out the student Answer Forms and have the students complete the non-answer sections on the front and back. Tell the students to pay special attention to marking their name and address accurately. Remind them that student names to be listed in the National Summary come from this form. The AMC Office will not do any editing of the information provided.
3. The name of the school, city, state and postal code must be stamped or written on each student answer form. This is very important because there is no computerized school identification on the answer forms. Please do not use computer generated labels to provide this information.
4. Announce that the students may use scratch paper, graph paper, ruler, compass, protractor and four-function, scientific, or graphing calculators. No problems on the contest will require the use of a calculator. However, any non-typewriter keyboard calculator accepted for use on the SAT may be used during the exam. See http:// www.collegeboard.com/student/testing/sat/codelist.html. Students may not share a calculator.
5. Review past tests and solutions or inform your students how to order copies for themselves. Please make available to the students a copy of the Publications Order Form included with this package or download the order form found on the AMC Web page at www.unl.edu/amc, www.amc10.org or www.amc12.org. (or call, fax or write to the AMC Office for a copy)
6. Encourage participation by students who have not taken the contest before, especially younger students, but make sure students know what to expect. Let them know about typical scores at your school last year at their grade level. Show students the national statistics in our National Summary of Results and Awards from last year. Tell them to set appropriate goals for themselves.
7. Remind students the day before the contest about the time and place of the AMC 10/AMC 12. Also tell them your plan if the school should suddenly close. All students must take the contest at the same time, either in one group or in separate classrooms under the supervision of a certified teacher.
8. Make sure you have arranged to follow all the rules and procedures in this manual. Early administration of the contests is never permitted, and will lead to
disqualification. In order to assure the validity of the results we report, we take our rules very seriously.

## V. Sickness and Other Special Situations

A student who is sick or on a field trip on the first contest day may register and take the alternate Contest B on Wednesday, February16, 2005. YOU MUST REGISTER FOR CONTEST B if you have not already done so. (see page 15 for a Registration Form).


## VI. International Students and Non-Citizens in USA Schools

Any student who is officially enrolled in high school (or below) and is taking at least one course at the school and has not graduated is eligible to take the AMC 10 or AMC 12 or AIME (with qualifying score). US and Canadian Citizens and Students residing in the United States (with qualifying scores) are eligible to take the USAMO.
Students learning "English as a Second Language" (ESL) may use a book or electronic dual-language nontechnical dictionary between their native language and English. A student may use the dictionary only the first time that he/she takes the AMC 10/AMC 12 . The dictionary must be given to the school contest manager to examine and retain for the $24-$ hour period preceding the contest. The proctor must announce to other students that the student(s) has/have been given special permission to use the dictionary during the contest.

## VII. Instructions For The Day of The AMC 10/AMC 12

If today is not yet Tuesday, February 1, 2005. STOP EVERYTHING. Under no circumstances is the contest to be given to anyone before the official day, nor should the contest package(s) be opened before that date.

1. Take the unopened contest package(s) and Certification Form to your Principal (or equivalent) to certify that the package was opened within an hour before the contest. Have the Principal sign the Certification Form at that time.
2. When the students arrive, seat them so they are separated by an empty space, if possible.
3. Hand out the Answer Forms which have been partially
completed by the students (AMC 10-orange/AMC 12red).
4. As you hand out the papers, tell the students not to open the contest booklet. They should then read the entire front cover. Give them 5 minutes to do this.
5. Inform the students to, "Note carefully instructions 3 and 4 on the contest cover." (see pages 19 and 20 of this manual). The AMC 10/AMC 12 has a unique scoring system which has important consequences for guessing. "Unless you are fairly sure of the answer, it is better to leave a question unanswered than to guess." Six points are given for a correct answer, 2.5 points for a blank answer and 0 points for an incorrect answer. If a student can reduce the problem to two possible answers, it is advantageous to guess one of the two possible answers. If a student can only reduce to 3 possible answers by eliminating 2 of the possibilities, then it is not advantageous to guess.
6. Inform the participants that they may not talk or ask any questions during the contest, and that they must do their own work.
7. Remind students that they have 75 minutes, then tell them to BEGIN.
8. Students who finish the contest early may be dismissed provided they will be under the supervision of a teacher during the remainder of the contest period.
9. You (and other teachers, if there are many participants) should proctor continually as you would for any important contest. Students whose eyes wander should be warned; students caught copying answers or collaborating must be disqualified. Try to provide as quiet an environment as possible.
10. Announce when there are 30 minutes remaining and when there are 5 minutes remaining.
11. When time is up, tell the students to STOP and have them sign their name in the space provided on the Student Answer Form. Collect the Answer Forms as quickly as possible.
12. Please do not grade the answer forms. They are to be sent to the AMC office for grading. Students may circle their answers on the contest booklet. However, the official answers will be the ones blackened on the answer form.
13. Fan the forms, making sure none are stuck together, and insert them along with the School ID Form (placed on top) inside the Report Envelope. There is only one ID FORM to be used with all the AMC 10/AMC 12 answer forms.

YOUR SCHOOL'S CEEB NUMBER IS THE NUMBER WRITTEN ON THE FRONT OF THE AMC 10/AMC 12 REPORT ENVELOPE.
14. Complete the Certification Form (only one form is needed) and place it on top of the School ID Form and the answer forms in the Report Envelope, seal and send it by First Class (trackable recommended) (please affix the proper postage before mailing) within 24 hours or as soon as possible.
15. Please note: After the Answer Forms have been delivered to the school office to be mailed, you may discuss the contest with your students under the following conditions which take into consideration the fact that there will be schools taking the contest in other locations at different times.
a. Inform the students that the contest may not be discussed with anyone outside of your school either orally, via email, www, copier or media of any type until the next day.
b. Students may keep the contest booklets and take them home.


## VIII. Policy Statements

## Early Administration

Administration on an earlier date is NEVER permitted and will lead to disqualification. Such an administration would jeopardize the validity of all scores from other participating schools.

## Official Administration

The AMC 10-A/AMC 12-A will be given officially on Tuesday, February 1, The AMC 10-B/AMC 12-B will be given officially on Wednesday, February 16. Only official participants, their school and their teacher are eligible for National Awards. In addition, official participants are eligible for all intramural awards and for participation in the AIME. (Students must participate in a contest on the assigned day, at the same time.)

## Unofficial Administration

If you are unable to give the Contest A on February 1 because:
a. your school is closed,
b. your school has an academic conflict,
c. the class periods have been shortened due to an assembly or other reason,
then you may give the second version of the contests (AMC 10-B/AMC 12-B) on the second official day, Wednesday, February 16, 2005 (See Contest B Registration Form on page 15). You may still take either exam unofficially on other days, but those contests will not be eligible for state and national awards and will not be eligible for participation in the AIME. Unofficial participants are still eligible for intramural awards .
It is important to note that the only days eligible for official participation are the two official Contest days: Tuesday, February 1, and Wednesday, February 16, 2005.

## Questionable Scores

If it is clear to the Contest Manager from personal observation that a student has cheated, then the Manager must disqualify the student. If the Contest Manager receives an accusation of cheating, or obtains other indirect evidence of cheating, then the Manager must hold back the student's paper and immediately report all the facts of the situation to the AMC Director, who in conjunction with the Chair of the CAMC, will determine what to do. UNDER NO CIRCUMSTANCES may the school decide on its own to accept a questionable score, nor should a school carry on its own investigation or retest the student in question before receiving instructions from the AMC Office. If it appears that a student has scored beyond his or her ability, this could be a case of previously unrecognized talent, or it might be a case of extremely lucky guessing, which is one of the grounds for reexamination.

## Follow-up Inquiries and Reexamination

The results of this contest are used to identify students with unusual mathematical ability. To assure that this purpose is served, the CAMC reserves the right to retest students before deciding whether to grant official status to individual or team scores. A follow-up inquiry may be made of a school if one or more scores are unusually high compared to other scores at that school in recent years, or if a student scores high on the AMC 10/AMC 12 and low on the follow-up AIME. Reexamination will be requested when, after an inquiry, there is a reasonable basis to believe that a high score is well beyond a student's ability due to extremely lucky guessing, dishonesty or some other circumstance. Official status will not be granted if a student or school does not agree to a requested retesting.

## Policy for Changes

The CAMC may, from time to time, change the program rules, regulations, awards and conditions of participation in whole or in part. Whenever possible you will be notified of these changes ahead of time.

## Refund/Credit Policy

If your school is unable to take the contests, please use the materials as practice sets for the next year. Do not return
them. WE CAN NOT GIVE REFUNDS OR CREDITS AFTER THE CONTEST MATERIALS ARE SHIPPED.

## Request for Student Names Policy

The following statement appears on the student answer forms for the AMC 10 and AMC 12:

The American Mathematics Competitions (AMC) receives requests from educational institutions and organizations for the names, addresses and grade levels of high scoring students. This information is used for recruiting and other academic purposes.
Blacken this circle if you give the AMC permission to release this information to these organizations. (Your score will not be affected if you do not blacken the circle.) Receiving information is an "opt-in" decision for each individual student.
The AMC handles requests from institutions and organizations on a case-by-case basis and evaluates each individually for appropriateness. We provide legitimate educational institutions of all levels, both secondary and collegiate/university level, with one-time use of selected names and addresses for postal mailings. We also provide professional and scholarly organizations such as those listed as contributors to the AMC with one-time use of names and addresses for postal mailings, generally for professional or career information. We do not provide names to for-profit companies.
The only information we provide is the name, address, city, state, and zip code necessary for a postal mailing. We do not list individual scores or awards.

## IX. School Results

The AMC office will mail results by first class as soon as the answer forms are scored. If you have not received your results from our office within 30 days after the AMC 10/AMC 12 please contact us to verify that your answer forms were in fact received.
In addition to the hard copy of the results and awards mailed via USPS, we offer an e-Mail copy of the results. If you would like to receive your results by e-Mail, and have not previously sent us your address, send a message, including your name, school name, address, and CEEB \# to:

## hstran@amc.unl.edu

Results are not official until the hard copy of your report is received, and that should be no longer than 30 days after AMC 10/AMC 12.


## X. AIME Instructions

The 22nd annual American Invitational Mathematics Examination (AIME) will be held on Tuesday, March 8, 2005 with a second alternate exam given on the alternate date of Tuesday, March 22, 2005. These are the only days the exam may be taken officially. You may give the exam for practice (unofficially), on Wednesday, March 23, Thursday, March 24 or Friday, March 25, 2005. We will be pleased to grade it for you but your students will not be eligible to take the USAMO. The contest is provided free of charge to all those taking the exam on the first date, however those taking the exam on the second alternate date will be charged a processing fee to cover expedited delivery.

## AIME Rules for AMC 10/AMC 12

Students who are in the top $5 \%$ of all AMC 12 participants or score at least 100 points on the AMC 12, and those who are in the top $1 \%$ of all AMC 10 participants or score at least 120 on the AMC 10 are invited to participate in the American Invitational Mathematics Examination.
PLEASE read the following participation rules to your students as soon as you receive the AMC 10/AMC 12 package so potential AIME students will be able to plan accordingly.

## To the AIME School Manager

1. The AMC office will include all materials relating to the examination (including proctoring instructions for the exam) with your AMC 10/AMC 12 results.
2. All questions or problems concerning the AIME should be directed to the AMC office (800-527-3690).
3. The AIME is a three-hour examination. Each of its 15 questions requires a three digit integer answer and each correct answer will receive one (1) point.
4. The AIME Answer Forms are sent directly to the AMC office for grading and processing.
5. Each participating school will receive a report of their results, an AIME solution pamphlet, and a list of students who qualify for the USAMO.
6. All AMC $10 / \mathrm{AMC} 12$ procedures for disqualification, follow-up inquiries and reexamination apply to the AIME as appropriate.
7. If you have students who you feel may qualify for the AIME please order prior year AIME exams and solutions for practice now. This way you will have these practice materials on hand when you receive your AMC 10/AMC 12 results.

## Second AIME Testing Date

There are THREE situations in which a student may take a second version of the AIME to be held on Tuesday March 22, 2005, keeping their USAMO eligibility open:

1. School is closed on March 8th (i.e. spring break, weather).
2. Student is out of school the entire day due to attendance at an academic/school related event.
3. Student is ill and can not attend school on March 8th. There will be a processing fee for the second AIME as follows: $1-10$ students $=\$ 25,11+$ students $=\$ 50$. We will need your payment before the answer forms can be graded. A special envelope and payment form will be included with your AIME material, if you have AIME qualifiers. All AIME answer forms must be returned by "express mail" so that they arrive in the AMC office by March 25, 2005.
Email requests for the second AIME may be sent to:
AIMEQUAL@AMC.UNL.EDU
or, you can call the AMC office at 1-800/527-3690. Please have your school identification number (CEEB) and charge card information available before calling. E-Mail requests should include the school's CEEB\#, and complete mailing address.
Under no circumstances can a student take both AIME's. We currently have no scholarship funding for high scores on the AIME.

## XI. Participant Selection for the USAMO

The USA Mathematical Olympiad (USAMO) is a two day, nine-hour, six-question,essay-proof examination. Selection for the USAMO will be made according to the following rules:

1. The goal is to select about 250 of the top scorers from the prior AIME and AMC 12A, AMC 12B, AMC 10A and AMC 10B contests to participate in the USAMO.
2. Selection will be based on the USAMO index which is defined as 10 times the student's AIME score plus the student's score on the AMC 12 or the AMC 10.
3. The first selection will be the approximately 160 highest USAMO indices of students taking the AMC 12A or AMC 12B contest.
4. The lowest AIME score among those 160 first selected will determine a floor value. The second selection of USAMO participants will be from the highest USAMO indices among students who took the AMC 10A or AMC 10B and the AIME, and got an AIME score at least as high as the floor value.
5. The student with the highest USAMO index from each state, territory, or U.S. possession not already represented in the selection of the first and second groups will be invited to take the USAMO.
6. To adjust for variations in contest difficulty, the number of students selected from A \& B contests will be approximately proportional to the number of students who took the A \& B Contests.
7. The selection process is designed to favor students who
take the more mathematically comprehensive AMC 12A and AMC 12B contests.
The USAMO is scheduled for Tuesday and Wednesday, April $19 \& 20,2005$ at your school, If you feel you may have a qualifier, please arrange for a space and proctor for these dates. The top 12 scoring students on the USAMO will be invited to attend an award ceremony held in Washington, D.C., June 26-27, 2005.


## XII. The MOSP Program

The Mathematical Olympiad Summer Program (MOSP) is a 3-week, all expenses paid, academic challenge designed to broaden participants' view of mathematics while fostering excitement toward further math study. It is held each year at the University of Nebraska-Lincoln in June-July. Invited students include the top 12 USAMO winners, 12-18 high-scoring USAMO participants, who are current juniors and below, and an additional 30 ninth-grade USAMO participants, grant funding permitting.
Watch for further details to be announced in the 2005 AIME/ USAMO Teachers' Manual and on the AMC website at www.unl.edu/amc.

## XIII. Contest Regions of the AMC 10/ AMC 12

The USA and Canada are partitioned into the following regions. National Awards are given to a minimum of 10 high scoring students and 5 schools (based on the team score) in each of these regions.

## Region

0 Connecticut, Maine, Massachusetts, New Hampshire, Pennsylvania, Rhode Island, Vermont
1 New Jersey, New York
2 Delaware, District of Columbia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
3 Alabama, American Embassy and APO/FPO Schools, Florida, Georgia, Puerto Rico, Virgin Islands
4 Indiana, Michigan, Ohio
5 Arkansas, Iowa, Kansas, Minnesota, Nebraska, North Dakota, Oklahoma, South Dakota, Wisconsin
6 Illinois, Kentucky, Missouri, Tennessee
7 Louisiana, Mississippi, Texas

8 Alaska, Arizona, Colorado, Guam, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming
9 California
10 Canada

## XIV. Intramural and National Awards

## Intramural Awards

Intramural awards will be sent to you from the AMC Office, along with your school results. Your registration fee entitles you to pins, medals, certificates, and a copy of the National Summary of Results and Awards. An order form for additional intramural awards will be included with your results. Winner Pin - given to the top scoring student in your school for both the AMC 10 and AMC 12. Medals will be given for consecutive wins in both contests mentioned above. Details of how medals are awarded will be included with your school's results.
Certificate of Distinction - awarded to all students who qualify for the AIME.
Honor Roll of Distinction Pin - given to the top $1 \%$ of the AMC 12 and to the top $1 \%$ of AMC 10 participants.
AMC 12 Certificate of Achievement - given to students in grade 10 and below who score 90 or above on the AMC 12 Contests.
AMC 10 Certificate of Achievement - given to students in grade 8 and below who score 90 or above on the AMC 10 Contests.
School Certificate of Honor - awarded to schools with a team score (AMC 12) of 400 or greater.
School Certificate of Merit - awarded to schools with a team score (AMC 12) between 300 and 399, inclusive.

## State/Provincial Awards

Some State/Provincial Directors offer various awards or scholarships in addition to the plaques.

Plaques - Top Scoring Student Plaque awarded to a student in each state or province.

## National Awards

In each of the eleven regions into which the United States and Canada are divided, the five schools with the highest team scores (sum of the highest three scores by participants) are recognized by Donor or Committee Awards. The highest scoring team in each region will receive a Cup, the remaining four teams will receive one of the following three awards:

Charles T. Salkind Memorial Silver Cup — silver cup awarded
to the school with the highest team score over all, donated by the L.G. Balfour Company, Attleboro, MA.
William H. Fagerstrom Memorial Silver Cup - silver cup awarded to the school with the second highest team score over all, donated by the L.G. Balfour Company, Attleboro, MA.
Committee Bronze Cups - in each of the regions in which a silver cup is not awarded the Committee on the American Mathematics Competitions provides a Bronze Cup to the school with the highest team score.

## Schools not receiving a cup are eligible for these

## awards

The four remaining schools in each region will receive one of these awards. Distribution of awards is arranged so that schools do not receive duplicates of awards made to them in prior years.
CAMC Mathematics Books - in each of the eleven regions, five books are donated by the Committee on the American Mathematics Competitions to one school having a high team score.
W. H. Freeman Books - in each of the eleven regions, a set of books, donated by W. H. Freeman Company, San Francisco, CA is awarded to one school having a high team score.
Mathematics Magazine - in each of the eleven regions, a one-year subscription is donated by the Committee on the American Mathematics Competitions to two or more schools having a high team score.

## Most Improved Team Score Award

Pedagoguery Award - awarded to one school in each of the 50 states, US Territories, Military Schools abroad, and Canada with the "Most Improved" Team Score on the AMC10 and AMC 12.


