MAA
MATHEMATICAL ASSOCIATION OF AMERICA

American Mathematics Competitions

Dear AMC 8 Managers,

Welcome to the 26th annual American Mathematics Competitions' AMC 8. You and your students will find the 2010 AMC 8 an excellent learning experience.

Please thoroughly read this manual for the rules and regulations for the AMC 8. Several days before the contest date fill out the School Identification Form and have the students complete the non-answer sections of the Answer Form (See Sections V. and VI., page 5.)

We again have a "window" which will enable schools to participate officially in case of a school closing or an academic conflict with the official scheduled date. The alternate "window" dates are November 17-23. Further rules governing the use of the "window" are found on page 6 of this manual.

Last year, the Edyth May Sliffe Award, recognizing distinguished mathematics teaching, was given regionally to fifty-three Sponsoring Teachers from high scoring AMC 8 schools. This program will be continued in 2010. Further details for nominating a teacher from your school are on page 8. If you nominate someone at the time you register, it will not be necessary to complete this form again.

We will make every effort to process your results rapidly. Most schools will receive their results before the holiday break.

On behalf of the Committee on the American Mathematics Competitions, I send my appreciation to you for all of your help with this contest.

Sincerely,

Steven R. Dunbar

Dr. Steven R. Dunbar
Director, MAA American Mathematics Competitions

American Mathematics Competitions
University of Nebraska - Lincoln | PO Box 880658 | 1740 Vine Street | Lincoln, NE 68588-0658
402.472.2257/phone | 402.472.6087/fax | amcinfo@maa.org | amc.maa.org

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I. Points to Note

NO CALCULATORS

The Committee on the American Mathematics Competitions has decided that the use of any calculator will not be allowed. No problems on the contest will require the use of a calculator.

Block Scheduling or Other Conflicts

The Committee on the American Mathematics Competitions has decided that the contest may now be administered on more than one day during the window period. Please keep all student answer forms secured, and send everything back to us after all administrations have taken place.

Give your Student Scores a Boost!

You can find a sampling of good practice questions on pages 11-19 in this manual! Also, our Math Club Package provides more practice questions and resources to help teachers prepare students for the AMC 8. (Use the "Math Club Package" line on Additional Bundles Form on page 9 to order.).

Let Parents/Guardians know about this activity!

The letter found on page 21 can be duplicated and sent home with students or handed out at parent/teacher conference time or open house.

Survey Questionnaire

We are constantly trying to improve and streamline our processes. We would greatly appreciate it if you would take the time to answer the 10 questions found on page 8. Mark responses using the grid on the back side of the school ID Form. Thank you!

II. Contents Of The Package

Your contest package contains

1. Teachers' Manual,
2. AMC 8 Report Envelope (marked with your school ID),
3. School Identification Form,
4. Contest bundles,
5. 10 Answer Forms for each bundle of 10 exams ordered, *(Please check that the number of bundles corresponds to the number ordered. If it does not, call the AMC office as soon as possible.)*
6. Solution Pamphlet Sets (if ordered) in sets of 10,
7. Contest Manager's Envelope *(contains a complimentary copy of the AMC 8 contest and solution)*,
8. Complimentary materials,
9. Math Messenger.

III. What Must Be Done Prior To November 16, 2010

1. Complete the following Pre-Examination processes associated with the AMC 8 Answer Forms:
   a. Stamp or print the Name and Address of your School (including ZIP code, if applicable) in the box in the upper right-hand corner on each form. **DO NOT put any type of paste-on or adhesive address label on the forms. The block could be filled in by using a computer program to print the information.**
   Please note that it is very important that each form is identified with your school name. We have no way to identify the answer form if the school name is omitted.
   b. Have the students complete the following parts of the form. *(The most common errors in the past have been filling in more than one circle in a column or not completely filling in the circles*).
      (1) Last Name
      (2) First Name
      (3) Middle Initial
      (4) Section Letter (if applicable)
      For each math class participating in the AMC 8, assign a different section letter of the alphabet (A-Z). These letters are assigned at the Contest Manager's discretion, and may be assigned by class, grade or ability group. Ten or more students should be assigned to each Section Letter. If you return results with Sections that have fewer than ten students, we will combine these Sections into a single Section. Certificates are given to the top 3 students in each section (see page 6).
      (5) Age, grade and gender
   c. Collect the Answer Forms for redistribution on the contest date.
   d. **Please** make a final check to see if the forms have been marked correctly.
2. Review the rules found on the package(s) of the AMC 8.
3. Discuss with your students the questions and solutions from previous AMC 8's so that they may see the type of questions to expect.
4. Review with your students the instructions on the cover of the 2010 AMC 8, found on page 23 of this manual.
5. The day before the contest, remind students of the time and place of the AMC 8.
6. Make arrangements to mail the AMC 8 REPORT ENVELOPE(s) by a **trackable mail service**.
7. Obtain a supply of: (a) #2 lead pencils with good erasers, and (b) unmarked scratch paper. **Students may not use a calculator.**

Inform students that no aids are permitted other than scratch paper, graph paper, ruler, protractors, and erasers. **NO calculaT0rS are allOweD**. No problems on the contest will require the use of a calculator.

IV. Instructions For The Day of The Contest

Do not open the contest bundle(s) until just before you are ready to hand the exams to the students.

1. Seat students so they are separated by an empty space, if possible.
2. Hand out the Answer Forms.
3. Provide a #2 lead pencil with a good eraser for each student.
4. Open the contest bundle(s), hand out the AMC 8 and inform the students that they are not to open the contest booklet until instructed to do so.
5. As you hand out the contest, tell the students to disregard the page which contains instructions for the contest manager.
6. Instruct students to read the entire front cover of the AMC 8. Allow 3 minutes to do this.
7. This 40 minute contest has twenty-five questions. When it is time to begin, tell students to unfold it to see all the problems and to be cautious about following the correct numeric sequence.
8. You will note that after the question there are five possible answers labeled A, B, C, D, and E. Only one answer is correct. Have your students mark their answers to these problems by the corresponding number on the answer form.
9. Tell your students to be AS CERTAIN AS POSSIBLE OF THEIR ANSWERS BEFORE THEY MARK THE FORM. Forms which contain imperfect erasures may not be read by the scanner that scores the contest. Tell your students to take special care to mark the answer in the row which corresponds to the problem number.
10. *Remark to Teacher:* Some students might wish to keep a personal record of their answers by circling their answers on the contest booklet before they are marked on the form. This procedure is acceptable provided it does not consume too much time. **However, the official answers will be the ones blackened on the answer form.**
11. Ask if there are any questions about procedures. Inform the participants that talking or asking questions during the contest is not allowed; they must do their own work.
12. Remind students that they have 40 minutes to complete the contest. Then tell them to BEGIN.
13. The contest should be proctored continuously as you would for any important contest. The proctor must warn any students whose eyes wander and disqualify any students caught copying answers or collaborating. Try to provide as quiet an environment as possible.
14. Announce when there are 15 minutes left and when there are 5 minutes left.
15. 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 and exams as quickly as possible. **Inform the students that the contest and solutions may not be discussed with anyone outside of their contest administration either orally, via email, internet, copier or media of any type until after November 23.**
16. **as the answer Forms are handed in, check that each student's name is on each one.**

17. **Please do not grade the answer forms.** Send them to the AMC for grading. Tell the students that their scores will be available by late December.

V. Instructions For Completing The School Identification Form

Several days before the contest date, please complete the following items on the School Identification Form.

1. Stamp or write your **school name** and complete **school mailing address** in the box in the upper-right hand corner. Please do not use address labels.
2. **School ID** -- Your School ID is on your AMC 8 Report Envelope. Copy your School ID in the empty boxes under the words "School ID."

Mark As Follows:

Schools using U.S.A. ZIP Codes: Blacken the circles for 0-9 in each column for the five digits and blacken one circle of the letters A-J for the letter that has been assigned uniquely to your school.

Canadian Schools: All schools have a School ID that follows this pattern: letter, digit, letter, blank, blank, letter. Blacken the correct circles under these 6 characters. Be sure to darken the blank circles (not the circles containing zeroes) for the two blanks in your School ID.

Schools outside the U.S.A.: All schools have a School ID in which the six characters are letters (A-Z), unless the 4th and/ or 5th characters are blanks. Blacken the correct circles under these six characters. Be sure to blacken the blank circles (not the circles containing zeroes) for the blanks in your school ID.

3. Mark the number of completed Answer Forms returned. Please do not count or return answer forms of students who were absent, blank forms or teacher "practice" forms.
4. Mark the proper circles for the date the contest was actually administered.
5. Be sure to complete the Survey on Page 8 by marking your answers on the back side of the ID form.

VI. What To Do Following The Contest

1. Place the School ID Form on top of the Answer Forms and insert in the Report Envelope.

   Notes:

   a. Please arrange the forms by section with each form facing the same direction with the same side up. **REMOVE ALL PAPER CLIPS, RUBBER BANDS OR NOTE PAPER ATTACHED TO ANY ANSWER FORMS. PLEASE FAN THE FORMS SEPARATING ANY THAT MIGHT BE STUCK TOGETHER.**
   b. Place no more than 200 forms in one envelope.
   c. Do not return blank forms or teacher "practice" forms.
2. Complete the Certification Form, page 7. If you did not nominate a teacher for the Sliffe award when you registered, please do so now on the Sliffe Award Nomination Form on page 8.
3. Ask your Principal or person with comparable title to sign the Certification Form. Place the Certification Form in the AMC 8 Report Envelope, seal and send it by a **trackable mail service** within 24 hours or as soon as possible after all administrations have taken place.

Notes:

- Indicate the number of packages you are returning in the space provided on the Report Envelope.
- Affix adequate postage to the AMC 8 Report Envelope.
- The AMC 8 Student ANSWER FORMS sent to Lincoln for grading will not be returned.
- We charge $10 for rescoring a student's individual contest.

4. Please note: After you have delivered all of the Answer Forms to the school office to be mailed, you may discuss the contest and solutions with your students. Remember that there will be schools taking the contest in other locations at different times, and some will be taking the contest on other "window" dates.
   a. Inform the students that the contest and solutions may not be discussed with anyone outside of their contest administration either orally, via email, internet, copier or media of any type until after November 23.
   b. The contest booklets must be collected from the students. They may be returned after November 23.

VII. Report of Results

The AMC 8 will be centrally scored at the AMC office at the University of Nebraska-Lincoln.

Each school report includes the following data:

1. A list of the top 20 students in your school.
2. A report for each section with a minimum of 10 students. This report lists the score of each student.
3. One combined report for all sections with fewer than 10 students.
4. Tables of Item Difficulty for the participants in your school.
5. A 2011 AMC 8 Registration Form for AMC 8 School Contest Managers who wish to register before the beginning of the next school year.
6. A 2011 AMC 10/AMC 12 Brochure will be included with your results. The dates of the AMC 10/AMC 12 are **Tuesday,** February 8, 2011 and/or **Wednesday**, February 23, 2011. We recommend interested students study prior year AMC 10/AMC 12 exams.
7. A National Summary of Results and Awards will include the names of the top-scoring students and a listing of the national award winners. This Summary will be sent following the complete analysis of results.

PLEASE NOTE:

IF YOU DO NOT RECEIVE YOUR 2010 AMC 8 REPORT OF RESULTS BY JANUARY 16, 2011 PLEASE CALL THE AMC OFFICE at .

ALL student answer forms returned for grading will be *RECYCLED* after February 15, 2011.

VIII. Eligibility and Participation Schedule

1. Any student 14.5 years of age or younger on the day of the contest and not enrolled in grades 9, 10, 11, or 12 or equivalent is eligible to participate.
2. The contest may be given during regular mathematics classes, to a section of the students, or at one time to the entire group of students.

Notes:

a. You should discuss academic integrity with your students if the contest is administered at several times or on more than one day, and all copies of the contest should be retained by the teacher until after all administrations have taken place.
b. See Section IX for instructions relating to administering the contest on other dates.

IX. Policy Statements

Statement 1

Official & Unofficial Administration of the AMC 8

Early Administration is NEVER permitted and will lead to a disqualification of the results. Such an administration would jeopardize the validity of all scores from other schools.

Official Administration: If you are unable to give the contest on November 16th 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, or
d. the majority of your students will be on a field trip,

then your school may use any day between November 17-23.

The AMC 8 should be given officially on the first day that the school has available testing time, from Wednesday, November 17 through Tuesday, November 23.

Please note: Because the contest may be given officially during the "window" days, as indicated above, you must collect the students' contest booklets and instruct them not to discuss the contest questions and solutions outside their contest administration until after November 23.

*We define the term "**contest administration**" as a group of students who are taking the contest at the same time in the same room.*

Unofficial administration after November 23 is permitted. Be sure to mark the exceptions box at the bottom of the certification form as indicated. **The last date to take the contest unofficially is Friday, December 10, 2010.**

Statement 2

Irregularities

If it is clear to the Contest Manager or another proctor that a student has cheated, then the Manager must disqualify the student's score and not submit that student's AMC 8 ANSWER FORM for grading.

If there is inconclusive evidence of cheating or an accusation without clear evidence, the Contest Manager must report this irregularity in writing when submitting the ANSWER FORMS for the school. This written report and the questionable ANSWER FORM(s) should be clearly identified, banded together and submitted along with the other ANSWER FORMS.

Statement 3

Follow-up Inquiries

The results of this AMC 8 identify students with exceptional mathematical ability. To assure that the purpose is served, the Committee on the American Mathematics Competitions reserves the right to make inquiries about scores, to re-examine students and to disqualify scores if necessary. If the required security procedures are not followed, all scores from a school may be disqualified.

Statement 4

Refund/Credit Policy

If your school is unable to take the AMC 8, please use the materials as practice sets for the next year. WE CANNOT GIVE REFUNDS OR CREDITS AFTER THE CONTEST MATERIALS ARE SHIPPED.

Statement 5

Learning Disabilities

The AMC 8 time limit set by the CAMC for students who are visually impaired or learning disabled is 70 minutes. A teacher or a school adminstrator may read the questions to the student and mark the answers as directed by the student. The cost of a Braille or Large Print exam is $11.00 for the AMC 8. These must be ordered prior to October 19, 2010.

Statement 6

Braille or Large Print Exams

1. The time limit set by the Committee on the American Mathematics Competitions for visually impaired students is 70 MINUTES.
2. Please note that a certified teacher or a school administrator may read the questions to the student and mark the answers as directed by the student.

Statement 7

English Language Learners

English Language Learners may use a book or 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 8. The dictionary must be given to the school contest manager to examine and retain for the 24-hour period preceding the test. The proctor must announce to other students that the student(s) has/have been given special permission to use the dictionary during the contest.

X. Intramural Awards

School Certificate of Honor — awarded to schools with a team score (AMC 8, top 3 students scores) of 66 or greater.

School Certificate of Merit — awarded to schools with a team score (AMC 8, top 3 students scores) between 50 and 65, inclusive.

Certificate of Distinction — is given to all students who receive a perfect score.

AMC 8 Winner Pin — given to the student(s) in each school with the highest score.

Certificate for Outstanding Achievement — the top three students in each of your assigned sections will receive, respectively, a gold, silver, or bronze certificate. In case of a tie, additional certificates will be included with your results.

AMC 8 Distinguished Honor Roll Certificate — given to all students who score in (approximately) the top 1%.

AMC 8 Honor Roll Certificate is given to all students who score in (approximately) the top 5%.

AMC 8 Achievement Roll Certificate — given to all students in 6th grade and below who score 15 or above.

A Certificate of Participation is included in this Teachers manual. This may be reproduced and given to the other students so that every student taking the AMC 8 will receive recognition. An Order Form will be included with your results in case you wish to purchase a set of these Certificates.

Achievement Award Pins, Certificates of Merit, t-shirts, and neckties are available for purchase if your school wishes to recognize other outstanding students. Ordering information for these awards will be sent along with your school's results.

XI. AMC 8 CERTIFICATION FORM 2010

To be eligible, a student should be 14.5 years of age or younger on the day of the contest and not enrolled in grades 9, 10, 11, or 12 or equivalent. The AMC 8 must be administered by a teacher or an adult not associated with or related to any of the participants. The administration of the contest must take place in a public building (e.g. school, library, church). **Please send all answer Forms from your school or group at one time.**

For a school/home school, the Contest Manager and the Principal, Vice Principal, Headmaster, Home School Coordinator, or person with comparable title must sign this form and return it with your student Answer Forms. The Contest Manager must wait until all aspects of the contest process at the school have been completed.

Certification by the principal, official or person with comparable title:

a. I certify that the contest package(s), the Complimentary Solutions Envelope and/or the Solution Packets were retained in their sealed condition within an hour of the start of the administration of the contest.
b. I accept for our school/home school the rules and procedures described on this page and pages 4-6, and accept that failure to follow these rules and procedures may result in DISQUALIFICATION from official standing of all scores from our school.

Signature _____ Time _____

Title _____ Date _____

If your school did not administer the AMC 8 contest on November 16, 2010, please enter the date(s) given ____.

If the contest was taken unofficially after the "window," mark the exceptions box at the bottom and write the reason on the bottom of this page.

Certification by the Contest Manager:

I certify that the following statements are true or that, if there are any exceptions, I have checked the box below and have listed them below or on the bottom of this page or on a separate sheet of paper. I understand that the absence of either signature from this form and a consideration of the exceptions may result in DISQUALIFICATION of all scores from our school. I understand that administering the AMC 8 before November 16, 2010 will lead to disqualification of our school's results.

1. Only students in 8th grade or below, or ages 14.5 or below participated in the Contest.
2. The package of Contests was not opened until just before the administration of the Contest.
3. The participants were continuously monitored during the Contest, and they were separated by an empty space, if possible.
4. Participants had exactly 40 minutes working time.
5. No student was permitted to proctor the Contest.
6. I collected all of the students' Contest booklets following the administration of the Contest.
7. After the Contest, the AMC 8 ANSWER FORMS were placed in the AMC 8 Report Envelope and kept secure. No changes were made in the answers. If the AMC 8 was given at more than one time, the Contest papers were kept secure until all administrations were over.
8. The instructions relating to the opening of the "Complimentary Solutions Envelope" and/or Solution Packets were followed.
9. I have followed all the rules as stated in this Teachers' Manual.

SIGNATURE_____ **DAY & DATE TEST WAS GIVEN** _____

School Name _____ Telephone _____

City _____ State _____ Zip _____

Email (please print clearly):_____ School Grade Level: _____ through ____

PLEASE INDICATE THE EXACT NUMBER OF AMC 8 ANSWER FORMS RETURNED FOR GRADING: _____ ☐ **EXCEPTIONS**

Questionnaire to Help Us Serve You Better

Thank you in advance for taking the time to answer these questions for us. Answer to the best of your ability, and if you don't know, just give us a "best estimate". Please fill in your answers in the ovals provided on the back of the school ID form. Thank you!

1. What is the average number of students in your school's math classes?
   0) 1-10 1) 11-20 2) 21-25 3) 26-30 4) 31-40 5) 40+
2. What grade levels are covered in your school? (mark all that apply)
   0) K-3 1) 4-5 2) 6 3) 7-8 4) 9-10 5) 11-12
3. How many students attend your school?
   0) 1-99 1) 100-399 2) 400-699 3) 700-999 4) 1,000-2,999 5) 3,000+
4. How many "Middle School" programs (schools) are there in your school district?
   0) 1 1) 2-5 2) 6-10 3) 11-15 4) 16-20 5) 21+
5. How did you find out about the American Mathematics Competitions?
   0) Student/Parent 1) Fellow teacher 2) Administrator
   3) Direct email 4) Direct postal mail 5) Our school has historically participated
6. Who or what do you rely on for information about activities or competitions your school can participate in? (mark all that apply)
   0) Student/Parent 1) Administrators 2) My own research online
   3) Direct email 4) Direct postal mail 5) Word of mouth from other teachers
7. In general, do other people you talk to know/have heard about the American Mathematics Competitions and its purpose?
   0) No, never heard of the AMC 1) Yes, but only know it's a math competition 2) Yes, know about the AMC
8. How do you prefer to receive information about the American Mathematics Competitions and its contests? (mark all that apply)
   0) Email 1) Postal mail 2) I prefer to go to the website myself
9. Do you use any of the following social networking sites to keep updated on topics important to you? (mark all that apply)
   0) Facebook 1) Myspace 2) Twitter 3) Blogger/Wordpress/Livejournal 4) Mobile Texts 5) None
10. Do you think the American Mathematics Competitions should have a presence on any of the above mentioned sites?
    0) Yes, all of them 1) Yes, some of them 2) I don't know/don't care 3) No, definintely not

XII. 2010 AMC 8 Sliffe NomINatIoN form for the Edyth May SliffE award for Distinguished Mathematics Teaching

(please print all information clearly)

Name of School Nominated Mathematics Teacher: _____

Only one name may be submitted from your 2010 AMC 8 registered school, and it should be the mathematics teacher who has been identified with the success of the students on the AMC 8. If you nominated a teacher during the registration process, you do not need to fill this out now. The teacher must be currently employed by the participating school from which the student answer forms have been submitted. **Please do not hesitate to list your own name. Past recipients are ineligible.**

School ID #: _____ Teacher's Email: _____

School Name: _____

City, State, & Zip: _____

School Telephone: _____

***NOTE**: Teachers are eligible for the Sliffe Award, provided their school has participated in the* AMC 8 *for three consecutive years. Approximately fifty awards (five from each of ten USA regions) are given. The award includes $100, a Sliffe pin, a certificate and a 1-year membership in the National Council of Teachers of Mathematics. Selection is based on averaging the scores of the top three students in each participating school over a three year period.*

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要下载或阅读全文，请访问：https://d.book118.com/216124000001010050