



MOEMS®

ORGANIZATION AND PROCEDURES

TEAMS

PICO (PRONOUNCED “PEE-KO”)

This is the acronym we use for the team coach and contact person. It stands for the Person In Charge of the Olympiad. The name and the email address of the PICO must be included on the registration form and all correspondence with MOEMS®.

TEAM TYPE BY COMPOSITION

School Teams: All students come from one school only.

Homeschool Teams: Students attend a Homeschool affiliated with local school districts or are partnered with a larger Homeschool Association. **The word “Homeschool” must appear in the team’s name.**

District Teams: Students come from different schools within the same district. Teams that are composed of students from several schools in the same district, or Gifted and Talented Programs from the same district fall into this category. **The word “District” must appear in the team’s name.**

Institute Team: Olympiad Contests and practice sessions are run by a private organization for from 1 to 35 participants. No student attending a school fielding a MOEMS® School Team may be on an Institute Team even if that student is not a member of the School Team. **The word “Institute” must appear in the team’s name.**

Parent-Institute Team: Olympiad Contests and practice sessions are run by a parent of a child or children who attend a school that does not field a MOEMS® School Team. **The word “Institute” must appear in the team’s name.**

TEAM TYPE BY ADMINISTRATIVE FORMAT

To provide the most flexibility to teams to receive contest materials, administer the contests, and score the contests, we have established two Team types. If a team’s situation changes during the contest year, the PICO can notify MOEMS® that a change in team type as needed.

OnPaper Teams: Traditional face-to-face testing for the entire team assembled socially distanced in one place at one time. Contest date, time, and location are chosen by the PICO within the approximately 4-week testing window set by MOEMS.

OnLine Teams: Remote testing of students at home or some other safe location by means of the internet. Contest date and time are chosen by the PICO within the testing window. To maximize the different options offered by this

format, teams enrolled as OnLine may split the students into conveniently sized groups that are tested within a short time of each other and may also split the students into both a remote group using the internet version of the contest and a one-location face-to-face group using the printable version used by OnPaper teams.

NOTE: All PICOs regardless of OnLine or OnPaper designation will receive the links to both the OnLine and OnPaper contest documents

DIVISIONS

To participate, each student must be enrolled in the member school, homeschool, district, or institute. Students who have completed eighth grade may not participate. A team with any 7th or 8th grade student must be in Division M. A team with any 4th or 5th grade student should routinely be in Division E, but 4th and 5th graders may be placed on a Division M team if appropriate. 6th grade students may be placed on either a Division E or Division M team. No team may be split between two divisions; however, a school may put any of its 6th grade students on both a Division E and Division M team, if both divisions are available at that school.

TEAM SIZE

The maximum number of students on any team is 35; however, a school may enroll more than one team, upon payment of the annual entry fee for each additional team. Although there is no set minimum number of team members, a team’s score is determined by the cumulative scores of the top 10 students after the 5th Olympiad.

REGISTERING STUDENTS

On the MOEMS® secure website, from the tab “My Team” click “Student List.” Enter the name, grade and gender of each student (even if all the students are in the same grade, each student must have a grade entered). Entering the names in alphabetical order is strongly suggested, but not mandatory. Team members that join after this list has been submitted should have their names placed at the end of the list on the next available blank line. Note: **Once the team members are registered, the secure website offers options to display the student list sorted by either first name, last name, or ID number.**

Certain information that may have been entered incorrectly, may be edited by the PICO; for example, spelling of names, grade or gender. However, student names should not be deleted by the PICO. If a student leaves, the box ABS should be checked for the remaining Olympiads or email **office@moems.org** to have the name removed. This correspondence is crucial when there are no additional lines left on the student roster to add a student.

CONTESTS

START UP MATERIALS

The following documents and services are available at the MOEMS® secure website after the PICO logs in with a Team ID and password:

- Fifty (50) practice problems with detailed solutions from the previous two years. These are included to help students and new PICOs understand what to expect on the upcoming contests
- The Online Scoring System, where students' names, grades, and genders are entered by the PICO before any student scores may be entered.
- The **Organization and Procedures** (this document), which is our rulebook. Printing out a copy for easy access is suggested.
- **What Every Mathlete Should Know**, which lists and defines terms that could be used in our Olympiad Contests.
- **Message to Parents**, which helps build parental support. It is suggested that the PICO email it to parents or reproduce enough copies to send home with each student.

DATES, TIME AND PLACE

Five Olympiad Contests, each consisting of five questions, and limited to 30 minutes are held monthly from November through March. MOEMS® sets an approximately 4-week window in which each Olympiad may be administered.

- For purposes of test security and fairness, all students must take the contest at the same date and time.
 - For OnPaper teams that means all team members in the same place at the same time.
 - For OnLine teams the situation is more complicated. Ideally all team members will take the contest remotely at the same time. But teams that are split into separate remote groups or into both remote and face-to-face groups must take the contest as close to the same time as possible.
- There are **no make-ups or early administration** for any reason for students who cannot be present on the announced date. If there is a concern, the PICO can postpone the contest to a later date within the testing window when most or all the team members can participate.
- Since there is a window of dates available for each contest, no contest may be given outside that window. Where the windows overlap, the earlier contest should be given before the subsequent contest since the later contests are more difficult than the earlier.
- All contests must be completed, and all scores reported by March 31 of the contest year. A late entry fee will be incurred if we enter those scores by hand when they arrive after the score deadline date for each contest.

PREPARATION

Approximately one week before the announced date of each Olympiad Contest, an email is sent to all PICOs of both OnLine and OnPaper teams advising that the Olympiad is

available at the secure area of the website in the printable form and in the online form as well as the appropriate links needed for both formats.

- For OnPaper teams, the PICO should then do the following:
 - **Pages 1–2 (Olympiad Problems and Student Answer Sheet):** Print out enough copies for all participants. This should be done as **two single sided pages** to allow the students the blank sides to be used as scrap paper.
 - **Pages 3–4 (Answers and Solutions):** Print out one copy for the PICO for scoring the Olympiad.
 - **Disposition:** Place all materials in a secure location until the day of the contest. Open it only at the contest in the presence of the student participants to assure your students of the security of the MOEMS® events.
- For OnLine teams, the PICO should make a copy of all 4 pages of the **printed (i.e. OnPaper)** form to read to the students at testing time and to be used when scoring their results.

Following the contest, the PICO may wish to distribute copies of the printed test form to other teachers for classroom use only. One advantage is that this can build support for the program among your colleagues.

At the first practice following the contest, the PICO may distribute copies of the printed (i.e. OnPaper) form including questions to all team members. By doing so, students will have materials from which to study, and parents may see what their children were asked to do.

IMPORTANT! These are copyrighted materials. Under no circumstances other than the directions above, may the actual contests or individual problems and/or solutions be published in any form, including on the internet or “secure” websites.

IF ENGLISH IS NOT THE FIRST LANGUAGE

With the increase of mathletes for whom English is not their first language, the following procedures become more important.

- The PICO is authorized to create a written foreign language version of each contest for any non-English reader. This translation should be attached to the original contest for storage. No additional time may be allocated for students using this accommodation.
- Students are able to use an English to foreign “word-to-word” dictionary, or an electronic version of that dictionary. No additional time may be allocated for students using this accommodation.

MATERIALS PERMITTED FOR CONTEST

The contest paper and clean scrap paper are the only places where students should show their scrap work. For OnPaper teams, the PICO can reproduce the contest as a single sided document (2 pages) and advise students that they may use

the backs of those pages as scrap. If needed, the PICO may distribute additional scrap paper. For OnLine teams, the PICO must verify that the sheets of scrap are clean and that no other aids or resources are available.

No other materials or tools are permitted. These include, but are not limited to, graph paper, rulers, protractors, calculators, or other electronic devices, including telephones. For OnLine teams, in addition to prohibiting these materials and tools, each team member should be alone in the room or testing area. Parents, siblings, tutors, and anyone else should be asked to leave the room.

ADMINISTRATION & PROCTORING CONTESTS

A proctor (usually, the PICO) must actively observe and monitor the students at all times. Students participating in the OnLine format may not use any virtual backgrounds on their computers. No one may help any student in any way during the contest. Students must receive all five questions as a single set and be given 30 minutes to complete all five questions, budgeting their time as they see fit.

- For OnPaper teams, after distributing the Olympiad face down and once the proctor is sure all pens/pencils are down, students should be instructed to turn over their papers and follow along as the proctor **reads aloud** all five questions.
- For OnLine teams, after making the contest available to viewing on the student screens, students should be instructed to follow along as the proctor **reads aloud** all five questions.
- For all teams, once the questions have been read, the proctor should give the students the signal to begin, reminding them that have precisely 30 minutes to complete the contest.

The only student questions that may be answered during the contest are those concerning words that need clarification, and in these cases alternate words may be given but not definitions or explanations. For example, if a question used the term "ones digit", a PICO is allowed to state that "units digit" is the same as "ones digit", but not allowed to say that "the units digit is the first digit to the left of the decimal point."

The PICO must give 15-, 10-, and 5-minute warnings to the students. For OnLine teams student answers must be entered properly in the provided answer spaces and submitted before the contest closes down. NOTE: The OnLine contest can be submitted early by the student but will be closed by the PICO once time has elapsed. Once submitted, the contest may not be revisited by the student.

SCORING AN OLYMPIAD

Scoring for both OnPaper and OnLine teams is done by the PICO. Consider all scores confidential. For OnPaper teams, all the papers will be collected and scored. For OnLine teams, student answers will be sent in a team answer spreadsheet to the PICO for scoring. Use the Answers and Solutions sheet to check student answers. Student answers must be **equivalent** to our key to be credited. If a student feels another answer

should be given credit, there is an appeals process in place (See "Appeals" later in this document).

REPORTING SCORES

Student scores for each Olympiad must be entered by the PICO on the secure area on the MOEMS® website. Click on "My Results" and then choose the appropriate Olympiad. Record all results next to each preprinted student name as follows (the computer program will automatically enter the score for each student):

- **Correct Answer:** Click the appropriate box under the problems answered correctly by the student.
- **Incorrect Answer:** Leave the appropriate boxes blank.
- **Did Not Participate:** Click the "ABS" box. Also, click this box for any students no longer on your team. NOTE: clicking "ABS" will override all other checkmarks for that student on that Olympiad.

Corrections to scoring may be made on the secure area on the MOEMS® website at any time up until the Deadline for Score Entry scheduled for all contests. Printing out a copy of the scores for each Olympiad has the advantage of convenience when reviewing any student's record, especially if our records differ from the PICO's. It also serves as a cover sheet for the packet of contest papers PICO's of OnPaper teams should be holding onto for the remainder of the year.

Important – The final results for all contests must be entered at the secure area by March 31 in order for the team to receive its complete set of awards by May 31. The Online Scoring System will close on that date. Any changes or additions made after March 31, as well as those made after the scoring input deadline for each contest, will have to be entered manually in the MOEMS® office. A procedure and an additional fee schedule will be provided for those late submissions. Results and initial awards will be processed based solely on scores submitted by the March 31 deadline. Supplemental awards will be sent after June 1 reflecting the late submissions.

Simply stated, completed award packages for teams with late submissions (i.e. those made after March 31) will not be sent out until after June 1st. There will be no exceptions to this rule.

RECORD KEEPING

It is strongly suggested that the PICO return **copies** of answer sheets along with the questions to the students and **keep all original answer sheets or team answer spreadsheets until all awards have been received.** Having the original answer sheets serves several purposes. It makes regrading after an appeal a much simpler process than trying to get the students to return their results; it facilitates score corrections (when necessary) after all your results have been finalized on the website; and finally, in the rare, unfortunate situation of a student changing an answer after a contest has been returned, verification is close at hand.

APPEALS & THE APPEALS PROCESS

Appeals may be granted only for alternate acceptable answers utilizing valid interpretations based on compliance with What Every Mathlete Should Know. Appeals are not granted for a reading or a copying error by the student, or if any condition of the problem is ignored.

Only a PICO may make a formal request for an appeal. Several parents insist upon calling or emailing our office, so it is incumbent upon you (the PICO) to explain that it would be impossible to respond to them individually.

Here is how an appeal works:

- (1) We receive one or more requests for an appeal from a PICO (students are not permitted to launch an appeal, unless it is through the PICO's email address) to a specific question and its answer.
- (2) We generate an email to our Appeals Committee (11 – 13 members, depending upon the Division), and ask that each member submits an “approval” or “denial” of the appeal, normally within 48 hours.
- (3) **If the appeal is approved:** As soon as a majority of those committee members “approve” the appeal request, an email will be sent to all PICOs of that division.
- (4) When approved, all PICOs will be instructed to give credit for the newly accepted answer, as well as for the original answer (unless it was mathematically incorrect), and to correct the records submitted on our secure website.
- (5) **If the appeal is denied:** Only those PICOs who raised the appeal will be notified immediately.
- (6) The next available newsletter will have a more complete discussion of the reasons for the acceptance or denial of the appeal.

If an appeal is accepted after the Final Date for Score Entry scheduled for that contest, a procedure for correcting the affected student scores will be made available. The PICO should have kept a copy of the original papers for OnPaper teams and the team answer spreadsheets for OnLine teams so that each students' answers are easily available, facilitating correction of grades due to appeals. It is also suggested that the PICO keep those answer sheets in a secure place for the entire year.

Given this procedure, please understand that the entire process can take up to 5 or 6 business days after the first appeal is received. We take our mission to provide creative and intellectually-stimulating problem solving experiences very seriously, and will continue to hear PICO concerns.

AWARDS

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All end-of-year awards are determined from the online scores entered by our PICOs. The following awards are shipped beginning in April based on state school closing date. We will make every attempt to get awards to each PICO before the end of the academic year and before May 31. Only School Teams and Homeschool Teams are considered for Team Awards; District Teams and Institute Teams are not permitted

to be granted Team Awards due to the make-up of those teams.

Individual Awards (all teams)

- A Certificate of Participation for each student who took part in MOEMS®
- An embroidered Olympiad Iron-On Patch for each student whose cumulative score is in the top 50 % of their division
- A “Gold” Pin or a “Silver” Pin for each student whose cumulative score is in the top 2% or 3-10% of their division, respectively
- One trophy for the highest individual scorer for each team. ***In the event of a tie, additional trophies may be purchased by the PICO***
- A boxed Medallion (the George Lenchner Award) for any student scoring a perfect (25) cumulative score.
- ***Note: “Honorable Mention” trophies are available for purchase for students whom the PICO might want to acknowledge***

Team Awards (School and Homeschool teams only)

A Team's Score is computed by taking the sum of the ten highest total scores on the team.

- For Each Division: A plaque for “Highest Team Achievement” for a team score in the top 10% of all participating teams

(With the exception of the “Highest Team Achievement” plaque, the following team certificates will not arrive in schools until sometime in June.)

- For Each Division: A “High Achievement” certificate for a team score in the next 10% (11% – 20%) of all participating teams
- For Division E: A “Grade 4 Meritorious Certificate” for each of the top 20% of teams with no grade 5 or 6 student
- For Division E: A “Grade 5 Meritorious Certificate” for each of the top 20% of teams with no grade 6 student
- For Division M: A “Grade 6 Meritorious Certificate” for each of the top 20% of teams with no grade 7 or 8 student
- For Division M: A “Grade 7 Meritorious Certificate” for each of the top 20% of teams with no grade 8 student

HONOR ROLL

Following the season, MOEMS® publishes an Honor Roll to commemorate the top scoring teams and students. The honor roll can be viewed and printed on line or can be purchased in a stapled booklet format. The honor roll contains a section for each of the team awards listed above as well as sections for students scoring 25 or 24 points.

- HIGHEST TEAM ACHIEVEMENT (for each division the top 10% of all participating teams)
- HIGH TEAM ACHIEVEMENT (for each division the second 10% of all participating teams)
- MERITORIOUS ACHIEVEMENT (for each division the top 20% of all participating teams whose members were in the lower grades for their division)
- STUDENTS WITH A PERFECT SCORE (for each division)
- STUDENTS WITH ONE LESS THAN A PERFECT SCORE (for each division)