November 21, 2019

MEMORANDUM TO:

OIC-Office of the Assistant Schools Division Superintendent
Chief Education Supervisors, CID and SGOD
Secondary School Principals
Officers-in-Charge
Public and Private Schools

MATHirang MATHibay

Attached is Regional Advisory No. 249, s. 2019 dated October 18, 2019 re: MATHirang MATHibay inter-high school Mathematics competition on February 17, 2020 at University of the Philippines, College of Science (UPD), Diliman, Quezon City, content of which is self-explanatory.

This is issued for information purpose only and not an indorsement of the activity.

For:

SHERYLL T. GAYOLA
Education Program Supervisor
Officer-In-Charge
Office of the Schools Division Superintendent

By:

NANCY E. SUEGAY
Public Schools District Supervisor
Officer-In-Charge
Office of the Schools Division Superintendent

Maka-Diyos, Makatao, Makalikasan at Makabansa
Advisory No. 47, s. 2019
October 18, 2019

In compliance with DepEd Order (DO) No. 8, s. 2013, this Advisory is issued not for endorsement per DO 28, s. 2001, but for the information of DepEd officials, personnel/staff as well as the concerned public. (Visit www.deped.gov.ph)

MATHirang MATHibay

The Organization of the Philippines Mathematics Majors’ Circle (UPMMC) Institute of Mathematics, University of the Philippines will hold the MATHirang MATHibay inter-high school Mathematics competition on February 17, 2020 at University of the Philippines, College of Science (UPD) – Diliman, Quezon City.

It is dedicated mainly to the scientific, intellectual and educational pursuits particularly in the field of Mathematics.

The target participants are Junior (Grades 7-10) and Senior (Grades 11-12) high school students from Public and Private Secondary Schools in National Capital Region (NCR). The pre-registration may be accessed from this link: https://upmmc.weebly.com

For more information, contact:

Abegail Riva L. Abrenica
President, UPMMC
(0927) 9252685/ (0939) 1025303
Website: https://upmmc.weebly.com
Email Address: upmathmajorscircle@gmail.com
October 17, 2019

Department of Education

SUBJECT: LETTER OF REQUEST FOR ENDORSEMENT

Greetings!

Our organization, the University of the Philippines Mathematics Majors’ Circle (UPMMC), is a non-sectarian, non-profit, academic organization under the Institute of Mathematics, College of Science, University of the Philippines Diliman (2010). It is dedicated mainly to the scientific, intellectual and educational pursuits, particularly in the field of Mathematics.

On February 17, 2020, the organization will be holding an inter-high school Mathematics competition called MATHirang MATHibay at the Institute of Mathematics, University of the Philippines Diliman. From its humble beginnings, it has grown to be one of the prestigious Math competitions awaited by various schools in Metro Manila and nearby provinces.

The participants of this event will be students from different high schools, i.e. grade 7 to 12. The online registration form will be available starting November 11, 2019 and it will be posted on facebook.com/MATHirangMATHibay. Early registration will end on February 7, 2020. Registration fee during this period of time is Php 450 for a school represented by one team and Php 850 for two teams. However, schools who would like to participate may still register starting the day after February 8, 2020 until the day of the event itself. Registration fee during this period of time is Php 500 for a school represented by one team and Php 900 for two teams. Each participating school may be represented by a maximum of two teams, each composed of three members. Winning teams shall obtain cash prizes.

In order to further publicize our event and accommodate more schools, the organization humbly requests your goodwill to ENDORSE the aforementioned event to the various high schools in the division.

Attached herewith is the mechanics of this activity. We are looking forward for your affirmative response regarding this matter.

Respectfully yours,

Abigail Riva L. Abrenica
President, UPMMC

EXECUTIVE BOARD

President: Abigail Riva L. Abrenica  President Emeritus: Dr. Helen Villanueva  Internal Vice President: Dr. C. Edgardo Guinto  External Vice President: Dr. Lloyd M. Ayuso  Vice President: Dr. Riz C. Gamboa  Secretary: Dr. Paulino A. dela Cruz  Publicity Officer: Dr. John Santo M. Morente  Treasurer: Dr. Raphael D. Louria  Membership Officer: Dr. Allan B. Asuncion  Year Level Representatives: Dr. Regine D. Bacalso  Special Affairs Committee Chairperson: Dr. Allan B. Asuncion  Finance Committee Chairperson: Dr. Lloyd M. Ayuso

www.upmmc.org

Tel. Nos. 9818671 to 72
BASIC INFORMATION

Name of the Organization: University of the Philippines Mathematics Majors' Circle (UPMMC)
Address: Mathematics Building Annex Room 109, University of the Philippines Diliman 1101 Quezon City, Philippines
Contact Number: 09279252685/09391025303
Email Address: upmathmajorscircle@gmail.com
Website: https://upmmc.weebly.com
Social Media Sites:
    Facebook – https://facebook.com/UPMMC
    Twitter – https://twitter.com/UPMMC
    Youtube – https://www.youtube.com/TheUPMMC

ABOUT THE ORGANIZATION

The University of the Philippines Mathematics Majors' Circle (UPMMC) is a non-sectarian, non-partisan, academic organization under the Institute of Mathematics, College of Science, University of the Philippines Diliman (UPD). It is dedicated mainly to the scientific, intellectual and educational pursuits, particularly in the field of Mathematics.

The organization aims to arouse greater interest in Mathematics and to promote scholastic excellence in this field of study. In line with these, the UPMMC holds the MATHbrang MATHbayan, an annual inter-high school Mathematics competition.

To be of service to the students, the UPMMC holds Agcmath, a free tutorial, at its tomba ran at the UPD Math Building Annex for the benefit of the UP students who need assistance and help in their math subjects. The organization also holds math textbooks sale at the start of every semester and makes sample exams with complete solutions for lower Math subjects offered by the Institute of Mathematics.

In addition to that, the UPMMC holds series of activities including the Freshmen, Shiftrees and Transferees Orientation Program to welcome the new students of the Institute of Mathematics.

EXECUTIVE BOARD

[Names of the officers and their roles]

www.upmmc.org
upmathmajorscircle@gmail.com
I. Nature of the Contest

1. The contest will include questions that vary in topics such as high school algebra, geometry, trigonometry, number theory, probability, combinatorics, and basic calculus.

2. The contest will consist of three rounds: the Elimination Round, the Oral Round, and the Final Round.

II. Contestants

1. Contestants shall be bona fide Grade 7 to 12 students of a high school in the Philippines.

2. Each team is composed of exactly three members and at most one alternate.

3. A school may be represented by up to two teams.

4. The alternate may only substitute as a member of the team if one of its members fails to show up on the day of the contest.

5. The three persons who participate in the Elimination Round must be the same three persons to represent their team in the succeeding rounds if their team qualifies for any succeeding rounds.

6. However, if within the duration of the contest, a member of a team can no longer continue for some reason, the alternate may substitute for that member in the next rounds, upon the approval of the Academic Committee of the UPMMC.

7. Contestants are expected to observe proper conduct during the entire contest.

III. Elimination Round

1. The Elimination Round is a 120-minute written test to be answered by team.

2. The test is composed of 20 questions.

   (a) The questions are divided into four categories: Easy, Average, Difficult, and Very Difficult. Each category has 5 items, with the Easy, Average, Difficult, and Very Difficult category worth 2, 3, 5, and 7 points respectively. The test, therefore, is worth 85 points.

   (b) The Easy, Average, Difficult and Very Difficult questions are to be given out at the 0th, 12th, 36th, and 72nd minute of the Elimination Round respectively.

   (c) Calculators are not allowed.
(d) Only answers in simplest form and with proper units shall be accepted.
(e) Scratch papers shall be provided for solutions.

3. The organizers shall not entertain any complaints during the test. Complaints from contestants will only be accepted in the first 10 minutes after time is up. Any information regarding the scores of contestants shall not be disclosed.

4. The top 25 teams will proceed to the Oral Round. These teams will be announced shortly before the start of the Oral Round.

5. Teams are tied whenever they obtain the same number of points. Such ties are broken in the following steps:

Step 1: We count the number of items answered correctly by each team from the Very Difficult category, and rank the teams accordingly.

Step 2: If ties persist from Step 1, we count the number of items answered correctly by each team from the Difficult category, and rank the teams accordingly.

Step 3: If ties persist from Step 2, we count the number of items answered correctly by each team from the Average category, and rank the teams accordingly.

Step 4: If ties persist from Step 3, we count the number of items answered correctly by each team from the Easy category, and rank the teams accordingly.

Step 5: If ties persist from Step 4, then all of the remaining tied teams are accepted into the Oral Round.

6. The decision of the Academic Committee of the UPMMC is final.

IV. Oral Round

1. The Oral Round consists of 36 questions with varying time limits, not necessarily in increasing order.

(a) The questions are grouped into 12 tiers of 3 questions each: one Easy, one Average, and one Difficult question.

(b) The tiers are approximately in increasing order of difficulty.

(c) The scores for the Oral Round are as follows.

<table>
<thead>
<tr>
<th>Tier no.</th>
<th>Easy</th>
<th>Average</th>
<th>Difficult</th>
<th>Max. no. of teams</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>25*</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>25*</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>25*</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>22</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>8</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>8</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>5</td>
<td>8</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>5</td>
<td>8</td>
<td>13</td>
<td>6</td>
</tr>
</tbody>
</table>

*The number of teams allowed for the first three tiers depends on the Elimination Round.*
2. Each team shall be provided with a copy of each question, facing down. The team may start reading as soon as the quizmaster says the question number. Any team caught reading the question before the quizmaster does shall automatically be disqualified from answering the question.

3. Each team shall also be provided answer sheets where their final answers are to be written. Contestants must write their corresponding team numbers on the upper right hand corner of the answer sheets – failure to do so shall merit the team no point for that question even if the answer is correct.

4. Scratch papers shall be provided for solutions.

5. The quizmaster shall announce the question number and the time limit before reading the question twice. Time shall only start after the quizmaster says “Go.”

6. After the time limit has elapsed, all teams must submit their answer sheet immediately to the proctors. Late answer sheet submissions will not be accepted. The proctors shall then give the answer sheets to the judges and the judges shall announce the teams who got the correct answer.

7. Only final answers with correct units and in simplest form shall be considered.

8. Blank answer sheets shall be considered incorrect.

9. At the end of tier 3, only the top 22 teams will remain in the competition. At the end of tiers 4-12, the 2 lowest-ranking teams per tier are eliminated.

   (a) If more than 22 teams are tied at the highest 22 ranks at the end of tier 3, or more than 2 teams are tied at the lowest 2 ranks at the end of tiers 4 to 12, then the tied teams are subjected to answer two questions with varying time limits, worth 1 point each.

   (b) If ties remain and the prescribed number of teams is still not achieved, then we shall proceed with traditional do-or-die questions until ties are broken and the prescribed number of teams is achieved. (For example, if at the end of Tier 4, Teams 1, 2, 3, and 4 are tied and only Team 1 manages to answer one question correctly, then Teams 2, 3, and 4 are to answer do-or-die questions until one team gets a question correctly, say Team 2. Teams 3 and 4 are therefore eliminated at the end of Tier 4.)

10. Contestants are requested to raise the flag provided on their respective tables to notify the judges of any protest. The protest should be forwarded to the judges before the quizmaster starts reading the next question.

11. The decision of the board of judges is final.

V. Final Round

1. The Final Round consists of 5 waves of 3 questions each.

2. The three questions are given simultaneously, with a difficulty rating of ‘Easy’, ‘Average’, ‘Difficult’, relative to each other.

3. The teams have a total of 5 minutes to answer all three questions in each wave.
4. An Easy question is worth a maximum of 7 points, an Average question is worth a maximum of 14 points, and a Difficult question is worth a maximum of 21 points. Teams are penalized for every wrong answer that they submit to the judges, as follows.

<table>
<thead>
<tr>
<th>Question</th>
<th>Maximum no. of points</th>
<th>Penalty for every incorrect attempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy</td>
<td>7</td>
<td>-1</td>
</tr>
<tr>
<td>Average</td>
<td>14</td>
<td>-2</td>
</tr>
<tr>
<td>Difficult</td>
<td>21</td>
<td>-3</td>
</tr>
</tbody>
</table>

(For example, if Team 1 has submitted 4 incorrect answers for the Easy question, 1 incorrect answer for the Difficult question, and gets the Easy question correctly on the 6th attempt, then Team 1 gets $7 - 4 \cdot 1 = 3$ points for that question.) The penalty stacks up with regard to the difficulty rating of the question attempted.

5. Each team shall be provided with a copy of each question of the wave, facing down.

6. The team may start solving as soon as the quizmaster starts reading the questions.

7. The quizmaster shall only read the questions once. Time shall start once the quizmaster says "Go", after which the teams may start submitting their answers.

8. Each team shall be provided 7 answer sheets. Each answer sheet corresponds to one attempt for a single question. Contestants must indicate on the answer sheet the difficulty rating of the question the answer is for - failure to do so shall merit the team no point for that question even if the answer is correct and shall be considered as an incorrect attempt.

9. Teams shall submit their answer sheets to the proctors whenever within the 5-minute wave, which will then be submitted to the judges. The judge assigned to the team shall raise a colored flag if that team answered a question correctly, with the color of the flag dependent on the difficulty rating of the question:

   Bronze – The team got the Easy question correctly.
   Silver – The team got the Average question correctly.
   Gold – The team got the Difficult question correctly.

Otherwise, the judge would just inform the team that they answered the question incorrectly. The board of judges shall announce the team number and the question/s that they got correctly at the end of each wave.

10. Only final answers with correct units and in simplest form shall be considered.

11. Scratch papers shall be provided for solutions.

12. Complaints will not be entertained during the course of any wave. The board of judges shall be open to receive complaints within one minute after a wave ends.

13. Ties for 1st, 2nd, and 3rd places are resolved by a tie-breaker wave where questions are also administered simultaneously.

   (a) The tie-breaker wave shall be for 1 minute only.
   (b) The tie-breaker wave consists of two questions: one Easy and one Average question, worth 0.25 and 0.5 points respectively.
   (c) If ties persist at the end of the tie-breaker wave, then we shall proceed with traditional do-or-die questions until ties are broken.

14. The decision of the board of judges is final.
VI. Special Cases

1. The UPMMC reserves the right to alter any rules covered by these mechanics without prior notice.
CERTIFICATE OF REGISTRATION

This certifies that the

MATHEMATICS MAJORS CIRCLE

has been accredited as a UNIVERSITY REGISTERED ORGANIZATION

by the Office of Student Activities (OSA), University of the Philippines Diliman, Quezon City

for the Academic Year (AY) 2018-2019 and is given permission to:

- use/attach/annex the name of the University (University of the Philippines, U.P.) to the name of the organization;
- conduct activities;
- request for activity endorsement;
- request to use any University or College facility/ies;
- apply for project grants;
- apply for a tambayan;
- partner with any UP unit; and
- participate in activities led by the University units.

Subject to the following conditions:

1. this registration is valid only for the AY/ Semester indicated;

2. that entitlement to all privileges accorded to registered organizations is still subject to the rules and guidelines set for such privileges;

3. that changes in the list of officers, members, faculty adviser/s, and the Constitution and By-laws shall immediately be reported to the Coordinator of OSA; and

4. that all activities of the organization must be approved and endorsed by its Faculty Adviser.

CERTIFIED:

Prof. MA. ALTHEA T. ENRIQUEZ
Coordinator, OSA

Date: 20 September 2018

NOTED:

Prof. JERWIN F. AGPAOA
Vice Chancellor for Student Affairs