MEMORANDUM TO:

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

MATHisang, MATHisbay OF THE UNIVERSITY OF THE PHILIPPINES
MATHEMATICS MAJOR’S CIRCLE (UPMMC)

Attached is Regional Advisory No. 192, s. 2018 dated November 5, 2018 re: MATHisang
MATHisbay on February 18, 2019 at the Institute of Mathematics, University of the Philippines
Diliman, content of which is self-explanatory, for information and appropriate action.

Immediate and wide dissemination of this Memorandum is desired.

JOEL T. TORRECAMPO
Officer-in-Charge
Office of the Schools Division Superintendent
Repulika ng Pilipinas
(Republic of the Philippines)
KAGAWARAN NG EDUKASYON
(DEPARTMENT OF EDUCATION)
PAMBANSANG PUNONG REHIYON
(NATIONAL CAPITAL REGION)
Daang Misamis, Bago Bantay, Lungsdod Quezon
(Misamis St., Bago Bantay, Quezon City)

ADVISORY NO. 192 s. 2018
Pursuant to DepEd Order No. 8, s. 2018
November 5, 2018

This Advisory is issued not endorsement but for the information of DepEd Officials, Personnel/Staff, as well as the concerned public per DepEd Order No. 28, s. 2018

INCLUSIVE EDUCATION WORK AT WORK

1. Attached is letter of invitation, signed by Mr. Steve Najee L. Ramos, President, UPMMC, re: MATHirang MATHibay at the Institute of Mathematics, University of the Philippines Diliman on February 18, 2019.

2. Immediate dissemination of this Advisory is directed.
October 26, 2018

WILFREDO E. CABRAL
OIC - REGIONAL DIRECTOR
Department of Education - NCR

SUBJECT: LETTER OF REQUEST FOR ENDORSEMENT

Greetings!

Our organization, the University of the Philippines Mathematics Major’s Circle (UPMCM), 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.

On February 18, 2019, the organization will be holding an inter-high school Mathematics competition entitled MATHirang MATHibay at the Institute of Mathematics, University of the Philippines Diliman. From its humble beginnings, it has grown to be one of the premier 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. grades 7 to 10. The online registration form will be available starting November 10, 2018 and it will be posted on facebook.com/MATHirangMATHibay. Early registration will end on February 4, 2019. Registration fee during this period of time is Php 400 for a school represented by one team and Php 700 per two teams. However, schools who would like to participate may still register starting the day after, February 5, 2018 until the day of the event itself. Registration fee during this period of time is Php 450 for a school represented by one team and Php 800 for two teams. Each participating school may be represented by a maximum of two teams, each composed of three members. Winning teams shall obtain each prize.

In order to further publicize our event and accommodate more schools, the organization humbly requests your good office 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,

Steve Najeel L. Ramos
President, UPMMC

EXECUTIVE BOARD
Steve Najeel Ramos, President | Emjay Flores, Publicity Officer
Phoebe Furagangan, Exequiel Kim Salvador
Maria Vanessa Leigh Sampaga, Sarah Angelica Youzon, Year Level Representatives
Angela Shayne Yamsau, OIC for Special Affairs Committee
Brian Reniel Refe, OIC for Secretariat Committee
Allysa Mira Pabiona, OIC for Membership Committee

✉️ upmathmajorscircle@gmail.com
Facebook: www.facebook.com/UPMCM
BASIC INFORMATION

Name of the Organization: University of the Philippines Mathematics Major’s Circle (UPMMC)
Address: Mathematics Building Annex Room 109, University of the Philippines Diliman, Quezon City, Philippines
Contact Number: 09182037535
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 Major’s 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 the field of study. In line with these, the UPMMC holds the Mathbing Mathibay, an annual Inter High School Mathematics Competition.

To be of service to the students, the UPMMC holds Agimath, a free tutorial of its tambayan at the UPD Math Building Annex for the benefit of the UP students who are in need of 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 such as the Fresher’s and Shiftees Orientation Program, Alternative Block Class and Inter-block Sports fest to welcome the new students of the Institute of Mathematics.

EXECUTIVE BOARD
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Angela Shayne Yamsuan, OIC for Special Affairs Committee
Brian Reniel Rife, OIC for Secretariat Committee
Allysa Mira Pabiona, OIC for Membership Committee

✉ upmathmajorscircle@gmail.com
🌐 www.facebook.com/UPMMC
✈️ www.upmmc.org
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 Diliman) for 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 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 the Faculty Adviser.

CERTIFIED:

Prof. MA. ALTHEA T. ENRIQUEZ
Coordinator, OSA

Date: 20 September 2018

NOTED:

Prof. JERWIN F. AGPAOA
Vice Chancellor for Student Affairs
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, and combinatorics.

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 the 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 comprised of 24 questions.

   (a) The questions are divided into three categories: Easy, Average, and Difficult. The Easy category has 10 items, each worth 1 point. The Average category has 7 items, each worth 2 points. The Difficult category has 7 items, each worth 3 points. The test, therefore, is worth 45 points.

   (b) Only answers in simplest form and with proper units shall be accepted.
(c) Scratch papers shall be provided for solutions.

3. The organizers will not entertain any complaints during the test. They shall only accept complaints in the first 30 minutes after the end of the Elimination Round.

4. The top 25 teams will proceed to the Oral Round. These teams will be announced shortly before 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 teams from the 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 teams from the Average category, and rank the teams accordingly.

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

Step 4: If ties persist from Step 3, then all of the remaining tied teams are accepted into the oral round.

6. The decision of the Academic Committee of 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.

(b) The tiers are approximately in increasing order of difficulty, each of which may carry a common theme.

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

<table>
<thead>
<tr>
<th>Tier no.</th>
<th>1st Question</th>
<th>2nd Question</th>
<th>3rd Question</th>
<th>Max. no. of teams</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12</td>
<td>24</td>
<td>36</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>47</td>
<td>58</td>
<td>69</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>79</td>
<td>89</td>
<td>99</td>
<td>35</td>
</tr>
<tr>
<td>4</td>
<td>108</td>
<td>117</td>
<td>126</td>
<td>32</td>
</tr>
<tr>
<td>5</td>
<td>134</td>
<td>142</td>
<td>150</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>157</td>
<td>164</td>
<td>171</td>
<td>18</td>
</tr>
<tr>
<td>7</td>
<td>177</td>
<td>183</td>
<td>189</td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>194</td>
<td>199</td>
<td>204</td>
<td>14</td>
</tr>
<tr>
<td>9</td>
<td>208</td>
<td>212</td>
<td>216</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
<td>219</td>
<td>222</td>
<td>225</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>227</td>
<td>229</td>
<td>231</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>232</td>
<td>233</td>
<td>234</td>
<td>6</td>
</tr>
</tbody>
</table>

*The number of teams allowed for the first three tiers depends on the elimination...
Observe that the scores are increasing, but the growth of the points shown do not tier. This is chosen to minimize the variance and relative error of the scores at the end of the Oral Round, as opposed to a linearly increasing scoring scheme.

2. Each team shall be provided with a copy of each question, facing down. The teams may start reading as soon as the quizmaster says the question number. Any team found 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 points 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 shall not be accepted. The proctors shall then give the answer sheets to the judges and the judges shall announce the teams with 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 consecutively. These questions are worth 10 and 20 points.

   (b) If none of the tied teams manage to improve their score, then all of them are eliminated.

   (c) If Rules 9.(a) and 9.(b) made the number of teams in play less than the prescribed number in any of the first 11 tiers, then no team will be eliminated.

   (d) If there are less than 5 teams left at any tier, then we will proceed immediately to the final round.

10. In the 12th tier, if there are exactly 6 teams left, then the 4 best teams will proceed to the final round.

   (a) If ties persist at the end of the 12th tier, the ties are broken by traditional die or die, fast-answer questions, until the ties are broken.

11. 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.

12. 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. The top 4 teams may carry over at most 20 points from their score in the 3rd Round computed as follows: carry over = 20% of the difference between their score and that of the eliminated team that garnered the highest points before being eliminated.

5. Below is the rundown of points per item for every minute of the wave.

   Table 2: Scoring for each question per time interval (M=33)

<table>
<thead>
<tr>
<th>Question</th>
<th>0:00 - 1:00</th>
<th>1:00 - 2:00</th>
<th>2:00 - 3:00</th>
<th>3:00 - 4:00</th>
<th>4:00 - 5:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Average</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Difficult</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
</tbody>
</table>

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

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

8. The quizmaster shall read the questions once. Time shall start then once the quizmaster says “Go”.

9. Each team shall be provided 10 answer sheets. Each answer sheet shall be 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 this shall merit the team no point for that question even if the answer is correct.

10. Teams shall submit their answer sheet to the proctors whenever within the 5-minute wave. Proctors shall signal the Academic Committee if a particular team answered a particular question correctly using the following colored flags.

      Dark blue - The team got the Easy question correctly.
      Light blue - The team got the Average question correctly.
      Gold - The team got the Difficult question correctly.

Otherwise, the team would just inform the team that they answered the question incorrectly. The board of judges shall announce the team number and the question they got correctly.

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

12. Scratch papers shall be provided for solutions.

13. 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.

14. Ties for 1st, 2nd, and 3rd places are resolved by a tie-breaker wave where questions are also administered simultaneously.
(a) The tie-breaker round will be for 2 minutes only.
(b) Below is the rundown of points per item for every 30 seconds.

<table>
<thead>
<tr>
<th>Question</th>
<th>0:00 - 0:30</th>
<th>0:30 - 1:00</th>
<th>1:00 - 1:30</th>
<th>1:30 - 2:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Average</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Difficult</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

(c) If ties persist at the end of the tie-breaker, then we will proceed with traditional do-or-die, until the ties are broken.

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