17th Philippine Mathematical Olympiad

16th of September 2014

THE SCHOOLS DIVISION SUPERINTENDENT
Department of Education
Division of Baguio City
Baguio City 2600 Philippines

Dear Madam/Sir:

Greetings!

The Philippine Mathematical Olympiad is the oldest and most prestigious nationwide mathematics competition among high school students. It is designed to select the best high school students in mathematical problem-solving through a friendly competition.

The PMO aims to stimulate the improvement of mathematics education in the country by awakening greater interest in and appreciation of mathematics among students and teachers and gaining insights into the levels of mathematics learning, identify and motivate the mathematically gifted, identify potential participants to the International Mathematical Olympiad, provide a vehicle for the professional growth of teachers, and encourage involvement of public and private sectors in the concerted promotion and development of mathematics education.

The 17th PMO shall be carried out in three stages:

1. Qualifying Stage **11 October 2014 (Sat)**: The Qualifying Stage is a multiple choice exam which will be administered in the **University of the Philippines Baguio**.
2. Area Stage **15 November 2014 (Sat)**: The Area Stage is a written competition among students in each area who will qualify based on their performance in the Qualifying Stage. It will be done also in **UP Baguio**.
3. National Stage **24 January 2015 (Sat),** The National Stage is a written and oral competition among the winners of the Area Stage competition. This will be held in **Metro Manila**.

Each school can send their eight best students to the contest. To participate, each student needs to fill out a copy of the attached application form. The school should send the confirmed **number of participants** to **+63-943-7250761** or to the given email address on or before **October 4, 2014**. Accomplished forms can be submitted on or before the date of competition.

In connection to this, we humbly ask that you endorse the participation of your division's schools. Moreover, we would like to request a copy of a list of the schools of your region with their contact information, and a copy of the endorsement letter from your office.

Thank you very much and we look forward to your positive response regarding our request.

Respectfully Yours,

Prof. Jerico B. Bacani, Dr.rer.nat.
CAR-Region 1 Coordinator
Email: jicderivative@yahoo.com
Tel.: (074)442-7231, 0943-725-0761

September 22,2014

To: All Secondary School
Principals, School Heads
(Public & Private)

FOR YOUR INFORMATION AND GUIDANCE.

FRANCIS CESAR B. BRINGAS, CESO VI
OIC, Schools Division Superintendent

Regional Coordinators

Region 1 & CAR DR. JERICO BACANI
Department of Mathematics and Computer Science
University of the Philippines Baguio
Governor Pack Road, 2600 Baguio City
Tel/Fax No. : (074) 4423888 (074)4427231
Mobile: 09437250761
email: jicderivative@yahoo.com

Region 2 MR. CRIZALDY BINARAO
Cagayan State University, Tuguegarao City
Tel No: (078) 304-0802.
Mobile No.09209818036 / 09175743409
Email: cpb_csu@yahoo.com

Region 3 DR. JUMAR VALDEZ
Graduate School, Tarlac State University,
Tarlac City
Tel No: (045) 982-5574, Fax: 982-0110
Mobile No. 0917 517 1713
Email: valdezjumar@yahoo.com.ph

Region 4A MS. SHARON P. LUBAG
De La Salle University - Dasmariñas
DBB-B City of Dasmariñas 4115
Tel No.: (046) 481-1900 to 1930 local 3087
Mobile No: 09163283417
Email: splubag@dlsud.edu.ph

Region 4B MS. SHEILA GRACE SORIANO
College of Arts and Sciences
Western Philippines University
Aborlan, Palawan
Mobile No.: 09077366213
Email: sheilagracesoriano@gmail.com

Region 5 SOLOMON L. OLAYTA
Department of Mathematics
Ateneo de Naga University, Naga City
Tel No: (054) 473-0756, 473-6447 loc 2126
Mobile No. 09273227481
Email: solomonolayta@yahoo.com

Region 6 MS. SALVIE MARIE A. FUENTES
Division of Physical Sciences and Mathematics
University of the Philippines Visayas
Miag-ao, Iloilo 5023
Mobile: 09176211689/09288966116
Tel Nos:(033) 513 7020 Fax:(033) 513 8785
Email: smaf091291@gmail.com

Region 7 DR. LORNA ALMOCERA
University of the Philippines, Cebu
Lahug, Cebu City 6000
Telefax No.: 032-2338203
Mobile No.: 0917 3276390
Email: lsalmocera@yahoo.com

Region 8 MR. ARIEL G. SALARDA
Leyte Normal University, Tacloban City
(053) 321-5628, Fax: (053) 325-6122
Mobile: 09173257244
Email: arielgsalarda@gmail.com

Region 9 DR. ROCHELLEO E. MARIANO
Math Department College of Science and
Information Technology
Ateneo de Zamboanga University
La Purisima St., Zamboanga City
Tel Nos: (062) 991- 0871 local 2243 or 2245
Mobile No. 0906 6269260
Email: romeo_4747@yahoo.com
marianoroce@adzu.edu.ph

Region 10, 12, & ARMM
DR. GINA MALACAS
MSU–Iligan Institute of Technology, Iligan City
Tel No:(063) 221-4050 loc 140,
Fax: 221-4068 Mobile: 09067821949
Email: ginastrong_frappe@yahoo.com

Region 11DR. EVEYTH P. DELIGERO
Dean, College of Arts and Sciences
University of Southeastern Philippines
8000 Davao City
Tel/Fax No. (082) 227-8192 local 235
Mobile No. 0922 8711181
E-mail: evedeligero@yahoo.com

Region 13DR. MIRALUNA HERRERA
Mathematics Department
Caraga State University
CSU Science and Technology Complex,
Butuan City.
Tel Nos: (085) 342-0326, Fax:(085)3421079
Mobile: 09308636155
Email: mirherrera71@yahoo.com

NCR LEMUEL MARTIN
Ateneo de Manila University
Mobile: 09165763575
Tel. No.:4266001 local 5682
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PMO CORE COMMITTEE

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The 17th Philippine Mathematical Olympiad

What is PMO?

The Philippine Mathematical Olympiad is the oldest and most prestigious nationwide mathematics competition among high school students. The 17th PMO is designed to select the best high school students in mathematical problem-solving through a friendly competition.

Objectives

The PMO aims to:

- stimulate the improvement of mathematics education in the country by awakening greater interest in and appreciation of mathematics among students and teachers and gaining insights into the levels of mathematics learning;
- identify and motivate the mathematically gifted;
- dentify potential participants to the International Mathematical Olympiad;
- provide a vehicle for the professional growth of teachers; and
- encourage involvement of public and private sectors in the concerted promotion and development of mathematics education.

General Guidelines and Scheme of Conduct

The 17th PMO is open to all high school students. It shall be carried out in three stages:

1. Qualifying Stage **11 October 2014 (Sat)**: The Qualifying Stage is a multiple choice exam which will be administered in each area (Luzon, Visayas, Mindanao, NCR). There will be one testing site for each region.
2. Area Stage **15 November 2014 (Sat)**: The Area Stage is a written competition among students in each area who will qualify based on their performance in the Qualifying Stage.
3. National Stage **24 January 2015 (Sat)**, The National Stage is a written and oral competition among the winners of the Area Stage competition. This will be held in Metro Manila.

Test development (preparation, analysis and evaluation of questions and problems to be used in the competition) begins in August 2014 and continues throughout the year.

For more information, visit our website at http://www.math.admu.edu.ph/pmo
For inquiries, email us at pmo@math.upd.edu.ph

Participants' Qualifications

Qualifying Stage

- This competition shall be open to all high school students in the country. Each of the participating schools may send a maximum of 8 contestants.
- Any bona fide student of private or public secondary high schools as specified above with a final grade of 88% (or its equivalent) in mathematics in the previous school year may apply.
- Participants will be asked to pay a minimal amount of PhP 150.00 upon registration to the PMO coordinator of their region.

Area Stage

- The participants with the top fifty scores per area (Luzon, Visayas, Mindanao and NCR) will qualify for the area stage.

National Stage

- The participants from the area stage with the top twenty scores in national ranking will qualify for the national stage.

Format of the PMO Competition

Qualifying Stage

- The qualifying stage competition is a 25 multiple-choice exam consisting of
  - Fifteen questions worth 2 points each
  - Ten questions worth 3 points each
- And five questions that will require answers only worth 6 points each

Area Stage

- The area stage competition is in the form of a written exam consisting of
  - 20 questions that will require answers only;
  - 3 open-ended questions that will require full solutions.

National Stage

- This competition shall have two phases: the written phase and the oral phase.
  - In the written phase of the competition, the contestants will be given 3 hours to answer 5 open-ended questions that require full solutions.
  - In the oral phase of the competition, 30 questions are to be read to the participants. These questions are to be answered within a specified time for each item. This phase is open to the public.

Selection of Winners

Qualifying Stage

The answer sheets will be checked and scored by a team designated by the PMO Technical Committee. The checkers will be selected so that each one is not related up to a second degree of consanguinity or affinity to any PMO participant. None of them will be teaching in any secondary school in the country. Each paper will be checked and double checked so as to ascertain the correctness of the scores.

Area Stage

The answer sheets will be checked by a board of judges which consists of college/university professors of mathematics who are not related up to a second degree of consanguinity or affinity to any PMO participant; and who are not teaching in high school.

Each correct answer in the first portion will merit 2 points. A complete and correct solution in the open-ended portion will merit 5 points. Partial points may be given in the open-ended portion as decided by the board of judges.

National Stage

Written Phase

The answer sheets will be checked by a board of judges which consists of five college/university professors of mathematics who are not related up to a second degree of consanguinity or affinity to any PMO participant, and who are not teaching in high school.

A complete and correct solution will merit 7 points. Partial points may be given as decided by the board.

Oral Phase

The board of judges shall consist of three members appointed by the PMO Committee.

The thirty questions will be divided as follows:

- 15 questions worth 2 points each
- 10 questions worth 3 points each
- 5 questions worth 6 points each

The participants will be ranked according to the following basis:

- 70% of the score in the written phase plus
- 30% of the score from oral phase

The top three participants and their coaches will be given trophies and cash awards.

The national finalists of the PMO will be qualified to join in the International Mathematical Olympiad Summer Camp (IMOSC). The IMO is the largest and most prestigious annual international mathematics competition among secondary school students. The representatives of the country to the IMO will be selected from the participants of the IMOSC.

Awards and Prizes for the PMO

Area Stage

1st Place	Student	Medal
	Coach	Certificate
	School	Certificate
2nd Place	Student	Medal
	Coach	Certificate
	School	Certificate
3rd Place	Student	Medal
	Coach	Certificate
	School	Certificate

National Stage

1st Place	Student	P 20000 and Medal
	Coach	P 5000 and certificate
	School	Trophy
2nd Place	Student	P 15000 and Medal
	Coach	P 3000 and certificate
	School	Trophy
3rd Place	Student	P 10000 and Medal
	Coach	P 2000 and certificate
	School	Trophy

Regional Testing Centers

Region 1/CAR	University of the Philippines Baguio City
Region 2	Cagayan State University Carig Campus, Tuguegarao City
Region 3	College of Business Administration, Tarlac State University, Tarlac City
Region 4A	De La Salle University - Dasmariñas
Region 4B	Western Philippines University – Puerto Princesa City Campus Sta. Monica Heights, PPC
Region 5	Ateneo de Naga University, Naga City
Region 6	UPV Auditorium, University of the Philippines Visayas, Iloilo City
Region 7	AS Building, UP Cebu College, Cebu City
Region 8	Leyte Normal University, Tacloban City
Region 9	Carlos Dominguez Hall, Ateneo de Zamboanga University, Zamboanga City
Regions 10	CSM Annex Building Mindanao State University – Iligan, Institute of Technology, Iligan City
Region 11	University of the Southeastern Philippines, Obrero, Davao City
Region 12* & ARMM*	CSM Annex Building Mindanao State University – Iligan, Institute of Technology, Iligan City
Region 13	College of Science Education Building Caraga State University Ampayon, Butuan City
NCR	Ateneo de Manila University,

*May take the qualifying exam in the testing center nearest them.

Area Coordinators

Qualifying Stage	Area Stage	National Stage
DR. MA. NERISSA MASANGKAY ABARA	**DR. RIGOR PONSONES**	**DR. RECTO REX M CALINGASAN**
Institute of Mathematics,	Math Department	Health Service Building,
University of the Philippines-Diliman	De La Salle University	University of Sto. Tomas
issa.math.upd.edu.ph	rigor.ponsones@dlsu.edu.ph	rexcali@yahoo.com
09209480820 / 09328573322	09175347826	Tel.: 7811821 Mobile: 0917501467

2014 Philippine Mathematical Olympiad Application Form

_____ _____ _____
Family Name First Name Middle Name

Year Level: _____ Date of Birth: _____ Sex: ____ Contact Number: _____

School: _____

School Address: _____

School Telephone No.: _____

Coach: _____

Landline No.: _____ Mobile No.: _____

_____
Signature of Student

This part is to filled in by the School Principal or Registrar.

The applicant's Final Grade in Mathematics for the School Year 2013 – 2014 was _____.

_____
School Principal
(Please print name and sign)

REMINDERS:

1. *All application forms must be submitted to the designated PMO Regional Coordinator assigned to your area on or before* ***12 oon of October 11, 2014.***
2. *A Ph150 registration fee will be charged upon submission of the application form or upon registration.*
3. *Please visit the PMO website* http://www.math.admu.edu.ph/pmo ***or Facebook page https://www.facebook.com/PhilippineMathematicaOlympiad*** *for other updates.*