

## Regional Coordinators

### Region 1 & CAR JERICO BACANI

Chair, 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: 09294887455  
email: jicderivative@yahoo.com

### Region 2 CRIZALDY BINARAO

Cagayan State University, Tuguegarao City  
Tel No: (078) 304-0802.  
Mobile No.09209818036 / 09178778122  
Email: cpb\_csu@yahoo.com

### Region 3 EDUARD TAGANAP

Central Luzon State University: Science  
City of Munoz, 3120, Nueva Ecija  
Cellphone No. 09227179976  
Email: 20thpmor3@gmail.com

### Region 4A SHARON 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 SHEILA GRACE SORIANO

College of Arts and Sciences  
Western Philippines University, Aborlan, Palawan  
Mobile No.: 09077366213  
Email: sheilagracesoriano@gmail.com

### Region 5 JOEL NOCHE

Department of Mathematics  
Ateneo de Naga University, Naga City  
Tel No: (054) 472-2368 loc 2540  
Mobile No. 09165787247  
Email: jnoche@gbox.adnu.edu.ph

### Region 6 FERDINAND MONOSO

Math and Physics Department  
Central Philippine University  
Jaro, Iloilo City 5000  
Mobile: 09173025122  
Email: fmonoso@yahoo.com

### Region 7 & NIR 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 ORESTE ORTEGA

Leyte Normal University, Tacloban City  
(053) 321-5628, Fax: (053) 325-6122  
Mobile: 09284057565  
Email: oresteortegajr@lnu.edu.ph

### Region 9 ROCHELLEO MARIANO

Dean, 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 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 11 JONALD FENECIOS

Ateneo de Davao University  
Roxas Ave., Poblacion District, Davao City, 8000  
Tel. No. (082) 222-2411 local 8320  
Mobile No. 09327291855  
E-mail: jpfenecios@addu.edu.ph

### Region 13 MIRALUNA HERRERA

Mathematics Department  
Caraga State University  
Butuan City  
Tel Nos: (085) 342-0326, Fax:(085)3421079  
Mobile: 09177707068  
Email: miraherrera71@yahoo.com

### NCR DENNIS LEYSON & RENIER MENDOZA

Institute of Mathematics  
University of the Philippines—Diliman  
Mobile: 09266479325  
Tel. No.:9201009  
Email: 20thpmnocr@gmail.com

### PMO CORE COMMITTEE

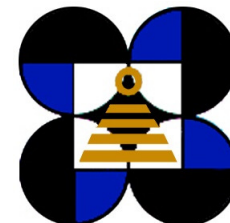
**Director: MA. NERISSA MASANGKAY-ABARA**

**Secretary: MAY ANNE TIRADO**

**Treasurer: VICTORIA MAY PAGUIO**



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## The 20<sup>th</sup> Philippine Mathematical Olympiad

### What is PMO?

The Philippine Mathematical Olympiad is the oldest and most prestigious nationwide mathematics competition among high school students. The 20<sup>th</sup> 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;
- 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.

### General Guidelines and Scheme of Conduct

The 20<sup>th</sup> PMO is open to all junior and senior high school students. It shall be carried out in three stages:

1. Qualifying Stage **28 October 2017 (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 **25 November 2017 (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 **20 January 2018 (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 September 2017 and continues throughout the year.

For more information, visit our website at [pmo.ph](http://pmo.ph)  
For inquiries, email us at [pmo@math.upd.edu.ph](mailto:pmo@math.upd.edu.ph)

## Participants' Qualifications

### Qualifying Stage

- This competition shall be open to all junior and senior high school students in the country. Each of the participating schools may send a maximum of 30 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 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-item multiple-choice exam consisting of
  - Fifteen problems worth 2 points each
  - Ten problems worth 3 points each
- And five problems 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 problems that will require answers only;
  - 3 open-ended problems 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 4.5 hours to answer 4 open-ended problems that require full solutions.
  - In the oral phase of the competition, 30 problems are to be read to the participants. These problems 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 3 points. A complete and correct solution in the open-ended portion will merit 10 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 four 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 problems will be divided as follows:

- 15 problems worth 2 points each
- 10 problems worth 3 points each
- 5 problems 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 invited to the Mathematical Olympiad Summer Camp (MOSC) for the International Mathematical Olympiad. 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 MOSC.

## Awards and Prizes for the PMO

Area Stage			National Stage		
1 <sup>st</sup> Place	Student Coach School	Medal Certificate Certificate	1 <sup>st</sup> Place	Student Coach School	P 20000 and Medal P 5000 and certificate Trophy
2 <sup>nd</sup> Place	Student Coach School	Medal Certificate Certificate	2 <sup>nd</sup> Place	Student Coach School	P 15000 and Medal P 3000 and certificate Trophy
3 <sup>rd</sup> Place	Student Coach School	Medal Certificate Certificate	3 <sup>rd</sup> Place	Student Coach School	P 10000 and Medal P 2000 and certificate Trophy

## Regional Testing Centers

Region 1/CAR	University of the Philippines Baguio City	Region 8	Leyte Normal University, Tacloban City
Region 2	Cagayan State University Carig Campus, Tuguegarao City	Region 9	Carlos Dominguez Hall, Ateneo de Zamboanga University, Zamboanga City
Region 3	Central Luzon State University City of Munoz, Nueva Ecija	Regions 10	CSM Annex Building Mindanao State University – Iligan, Institute of Technology, Iligan City
Region 4A	Math Building, UP Los Banos, OR Calayan Educational Foundation, Inc. (CEFI), Lucena, Quezon	Region 11	Ateneo de Davao University Davao City
Region 4B	Western Philippines University – Puerto Princesa City Campus Sta. Monica Heights, PPC	Region 12* & ARMM*	CSM Annex Building Mindanao State University – Iligan, Institute of Technology, Iligan City
Region 5	Ateneo de Naga University, Naga City	Region 13	College of Education Building Caraga State University Ampayon, Butuan City
Region 6	Central Philippine University Jaro, Iloilo City	NCR	University of the Philippines—Diliman
Region 7	AS Building, UP Cebu College, Cebu City		

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

## Area Coordinators

Qualifying Stage	Area Stage	National Stage
<b>JASMIN-MAE SANTOS</b>	<b>RIGOR PONSONES</b>	<b>LEN PATRICK DOMINIC GARCES</b>
Institute of Mathematics University of the Philippines-Diliman jsantos@math.upd.edu.ph Mobile: 09209480820	Math Department De La Salle University rigor.ponsones@dlsu.edu.ph 09175347826	Ateneo de Manila University lgarces@ateneo.edu Mobile: 09178998845 Tel. No.:4266001 local 5682