Regional Coordinators

Region 1 & CAR DR. 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: iicderivative@vahoo.com

Region 2 MR. CRIZALDY BINARAO

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

Region 3 MS. MARITES C. BATAC

DOST3 Telefax No. 045-455-2348 Cellphone No. 09156002607/ 09257251759 Email: tisha104@gmail.com

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 Joel Noche

Department of Mathematics Ateneo de Naga University, Naga City Tel No: (054) 473-0756, 473-6447 loc 2126 Mobile No. 09165787247 Email: jrnoche@mbox.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 DR. LORNA ALMOCERA

University of the Philippines, Cebu Lahug, Cebu City 6000 Telefax No.: 032-2338203 Mobile No.: 0917 3276390 Email: Isalmocera@yahoo.com Region 8 MR. ARIEL G. SALARDA Leyte Normal University, Tacloban City (053) 321-5628, Fax: (053) 325-6122 Mobile: 09173257244 / 09209766862 Email: arielgsalarda@gmail.com

Region 9 DR. ROCHELLEO E. 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

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 11 DR. EVEYTH P. DELIGERO

Chair, Department of Mathematics and Statistics College of Arts and Sciences University of Southeastern Philippines 8000 Davao City Tel/Fax No. (082) 227-8192 local 247 Mobile No. 0922 8711181 E-mail: evedeligero@yahoo.com

Region 13DR. MIRALUNA L. HERRERA

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

NCR LEN PATRICK DOMINIC M. GARCES

Ateneo de Manila University Mobile: 09178998845 Tel. No.:4266001 local 5682 Fax: 4266125 Email: Igarces@ateneo.edu

PMO CORE COMMITTEE

Director: MA. NERISSA MASANGKAY Secretary: MAY ANNE C. TIRADO Treasurer: JOHNATAN S. PIMENTEL



The 19th Philippine Mathematical Olympiad

What is PMO?

The Philippine Mathematical Olympiad is the oldest and most prestigious nationwide mathematics competition among high school students. The 19th 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 19th PMO is open to all junior and senior high school students. It shall be carried out in three stages:

- 1. Qualifying Stage 22 October 2016 (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 **19** November **2016 (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 **21 January 2017 (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 2016 and continues throughout the year.

For more information, visit our website at pmo.ph For inquiries, email us at 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 25 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, Visavas, 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 gualify for the national stage.

Format of the PMO Competition

Qualifying Stage

- The qualifying stage competition is a 25 multiplechoice exam consisting of
- Fifteen questions worth 2 points each
- Ten guestions worth 3 points each
- And five guestions 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 guestions that will require answers only;
- 3 open-ended guestions 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 questions that require full solutions.
- In the oral phase of the competition, 30 guestions 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 3 points. A complete and correct solution in the openended 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 questions will be divided as follows:
- 15 guestions worth 2 points each
- 10 questions worth 3 points each ٠
- 5 guestions 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 gualified 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			National Stage		
1 st Place	Student	Medal	1 st Place	Student	P 20000 and Medal
	Coach	Certificate	i i	Coach	P 5000 and certificate
	School	Certificate		School	Trophy
2 nd Place	Student	Medal	2 nd Place	Student	P 15000 and Medal
	Coach	Certificate	: !	Coach	P 3000 and certificate
	School	Certificate	! !	School	Trophy
3 rd Place	Student	Medal	3rd Place	Student	P 10000 and Medal
	Coach	Certificate	! i	Coach	P 2000 and certificate
	School	Certificate	! i	School	Trophy

Regional Testing Centers

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i R	Region 1/CAR	University of the Philippines Baguio City	Region 8	Leyte Normal University, Tacloban City	
i R !	Region 2	Cagayan State University Carig Campus, Tuguegarao City	Region 9	Carlos Dominguez Hall, Ateneo de Zamboanga University,	
Region 3	Region 3	Don Honorio Ventura,		Zamboanga City	
		Technologicals State University Bacolor, Pampanga	Regions 10	CSM Annex Building Mindanao State University – Iligan,	
Region 4A	Region 4A	University of Batangas, Batangas		Institute of Technology, Iligan City	
	City, Batangas	Region 11	Ateneo de Davao University		
Region 4B			Western Philippines University – Puerto Princesa City Campus	E. Jacinto St., Davao City	
į		Sta. Monica Heights, PPC	Region 12* & ARMM*	CSM Annex Building Mindanao State University – Iligan,	
¦R	Region 5	Ateneo de Naga University, Naga City		Institute of Technology, Iligan City	
		Naga Oliy	Region 13	College of Science Education Building	
i R	Region 6	Central Philippine University Jaro, Iloilo City		Caraga State University Ampayon, Butuan City	
¦R !	Region 7	AS Building, UP Cebu College, Cebu City	NCR	Ateneo de Manila University,	
I		-	*May take the qualifying exam in the testing center nearest them.		

Area Coordinators

Qualifying Stage		Area Stage	National Stage							
	RECTO REX M. CALINGASAN		JASMIN-MAE B. SANTOS							
	University of Sto. Tomas rexcali@yahoo.com	Math Department De La Salle University rigor.ponsones@dlsu.edu.ph 09175347826	Institute of Mathematics, University of the Philippines-Diliman jmbsantos@math.upd.edu.ph 09175752122							