



Republic of the Philippines
DEPARTMENT OF EDUCATION
Region III
CITY SCHOOLS DIVISION
City of San Jose del Monte

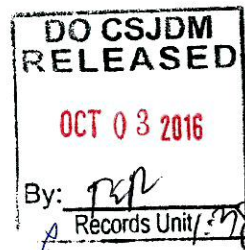


September 30, 2016

DIVISION MEMORANDUM

No. 168, s. 2016

To: Assistant Schools Division Superintendent
Division Chiefs
Public Schools District Supervisors
Public Secondary School Heads
All Others Concerned



DIVISION OPEN COMPETITION IN MATHEMATICS (DOC-M)

1. In preparation for the 19th Philippine Mathematical Olympiad of the Mathematical Society of the Philippines (MSP) and the Department of Science and Technology-Science Education Institute (DOST_SEI), this Office announces the conduct of the *Division Open Competition in Mathematics (DOC-M)* on October 14, 2016 (Friday), 7:30 AM at Sapang Palay National High School.
2. The activity aims to:
 - a. provide training specifically designed to hone mathematical problem solving skills of the students;
 - b. identify and prepare potential participants to the 19th Philippine Mathematical Olympiad (PMO);
 - c. simulate the procedures in conducting the PMO; and
 - d. encourage involvement of public schools in the concerted promotion and development of Mathematics Education.
3. This is open to all Junior and Senior High School students who will participate in the 19th Philippine Mathematical Olympiad (PMO) – Regional Qualifying Stage which will be held on October 22, 2016 at Tarlac State University (TSU).
4. Enclosure No. 1 contains the program of activities.
5. Enclosure No. 2 is the updated brochure of 19th Philippine Mathematical Olympiad.
6. All school heads are encouraged to give their usual support to ensure the success of the said activity.
7. Wide dissemination of the content of this Memorandum is earnestly desired.


GERMELINA H. PASCUAL, CESO V
Schools Division Superintendent



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Division Open Competition in Mathematics (DOC-M)
 Sapang Palay National High School
 October 14, 2016

PROGRAM OF ACTIVITIES

Time	Activities
7:30 AM	A. Preliminary Activities
	1. <i>Arrival and Registration of Participants</i>
	2. <i>Orientation of the Participants</i> - Ma. Corazon P. Loja EPS I - Mathematics
8:45 AM	Snacks
9:00 AM	B. Training Proper - Alexander C. Ignacio T-III, Sapang Palay NHS (JHS)
	- Rosita C. Falible MT-II, Minuyan NHS (SHS)
	- Julius S. Villanueva T III, Kakawate HS (SHS)
	- Erwin J. Cabigao T- III, Muzon HS (JHS)
12:30 PM	Lunch Break
1:30 PM	C. Simulation/Contest Proper - Junarlito P. Rondina OIC - Math Dept (SPNHS)
	- Joycelyn M. Lanozo HT -II - Math Dept (Muzon HS)
3:30 PM	Snacks
4:00 PM	D. Checking - Select Math Teachers
5:00 PM	E. Awarding of Recognition to Top Performing Students

Regional Coordinators

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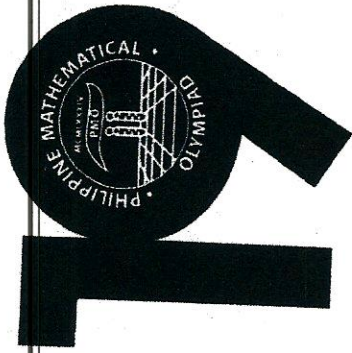
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PMO CORE COMMITTEE

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:
- 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.
 - 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.
 - 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 20 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 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 4.5 hours to answer 4 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 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 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		National Stage	
1 st Place	Student Medal Coach Certificate	1 st Place	Student P 20000 and Medal Coach P 5000 and certificate School Trophy
2 nd Place	Student Medal Coach Certificate	2 nd Place	Student P 15000 and Medal Coach P 3000 and certificate School Trophy
3 rd Place	Student Medal Coach Certificate	3 rd Place	Student P 10000 and Medal Coach P 2000 and certificate School Trophy

Regional Testing Centers

Region 1/CAR	University of the Philippines Beguio 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	College of Business Administration, Tarlac State University, Tarlac City	Regions 10	CSM Annex Building Mindanao State University – Iligan, Institute of Technology, Iligan City
Region 4A	University of Batangas, Batangas City, Batangas	Region 11	University of the Southeastern Philippines, Obrero, 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 Science Education Building Caraga State University Ampayon, Butuan City
Region 6	Central Philippine University Jaro, Iloilo City	NCR	Ateneo de Manila University,
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
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