

### Republic of the Philippines

# Department of Education

REGION III SCHOOLS DIVISION OFFICE OF BATAAN

## DIVISION ADVISORY No. 267, s. 2024

SFP 18 2024

To:

Assistant Schools Division Superintendent

Chief Education Supervisors Education Program Supervisors Public Schools District Supervisors

Public and Private Elementary/Secondary School Heads

All Others Concerned

This Office announces the conduct of the 5<sup>th</sup> National and International Vedic Mathematics Competition which will be administered per district on September 28, 2024, and November 30, 2024, respectively.

Public and Private Schools Heads may coordinate with their District Coordinators and Department Heads for the guidelines of the competition.

All schools are advised to adhere to the rules and regulations stated in DepEd Memorandum No. 41, s. 2024, titled Reiteration of No Collection Policy.

Attached are the contest details of the events.

CAROLINA S. VIOLETA, EdD, CESO V
Schools Division Superintendent

In compliance with DepEd Order No. 41, s. 2013, this Division Advisory is issued not for endorsement per D.O. 28 s. 2001 only for the information of DepEd Officials, personnel as well as the concerned public.

914/ September 14, 2024













### DepEd Bataan <bataan@deped.gov.ph>

# 4th International Vedic Math Olympiad (IVMO 2024)

1 message

competitions@math-inic.com <competitions@math-inic.com>
To: bataan@deped.gov.ph

Mon, Sep 9, 2024 at 3:47 PM



September 6, 2024

DR. CAROLINA S. VIOLETA

Schools Division Superintendent

Division of Bataan

Dear Dr. Violeta.



I am writing to formally extend the invitation of James Glover, the esteemed Chair of the Institute for the Advancement of Vedic Mathematics (IAVMO), to schools in your division to participate in the upcoming 4<sup>th</sup> International Vedic Math Olympiad (IVMO 2024) on November 30, 2024. Enclosed with this letter, you will find the invitation from Mr. Glover outlining the competition format and requirements and a flyer of the event containing the registration link.

As the Philippines continues to excel in the realm of Vedic Math on a global scale, we are eager to further boost our participation and make this year's event a resounding success. Your support plays a vital role in rallying schools in your area to join hands in showcasing our collective dedication to mathematics excellence.

We are confident that with your encouragement, we can achieve an unprecedented turnout, solidifying the Philippines' position as the leader in Vedic Mathematics worldwide.

Mr. Glover mentioned that in last year's IVMO 2023, more than five thousand Filipinos participated. He failed to mention, though that our mathletes won 244 gold, 488 silver and 746 bronze medals and 1490 merit awards, which is about 95% of all the awards given.

Even as we are now busy preparing for the 5<sup>th</sup> Philippine National Vedic Mathematics Olympiad which is one of our training events for the IVMO, we need your support to inform more students and teachers about this global competition.

Your collaboration will not only benefit the participating schools but also contribute to the advancement of mathematical education in our country.

We sincerely hope that you will consider supporting and promoting this event within your division, fostering a spirit of enthusiasm and friendly competition among students.

Thank you for your time and consideration. We look forward to the potential of working together to make this year's IVMO an enormous success.

Warm regards,

Vingles Andete

Virgilio Prudente

MATH-Inic Philippines

3 attachments

Vingelia Andete 1K 1K

IVMO Letter PH 2024.docx 68K



IVMO Flyer 24 V1.pdf 330K



### **IVMO 2024**

# International Vedic Maths Olympiad

# A Competition in Speed, Problem-Solving and Mathematical Acumen

30th August 2024

Dear Sir,

I would like to draw your attention to this exciting Maths competition which will be held on Saturday 30<sup>th</sup> November 2024 and hope you will pass on the information to schools and colleges within your division for which a flyer is attached.

IVMO consists of one hour exam-like papers that test the ability and speed in using Vedic Maths techniques and problem-solving. Each paper has 40 multiple choice questions.

There are six levels of entry as follows:

Lower Primary IVMO - 9 years and under

Upper Primary IVMO - 11 years and under

Junior IVMO - 13 years and under

Intermediate IVMO - 16 years and under

Senior IVMO - 18 years and under

All participants receive certificates and top scorers receive gold (5%), silver (10%) and bronze (15%) medals.

The Olympiad may be taken online or offline and is run through Centre Coordinators. These CCs are mathematics teachers who are also familiar with Vedic Maths, largely due to Virgilio Prudente and his team. Mr Prudente runs our affiliated organisation, Math-INIC in the Philippines. Centre Coordinators offer coaching in the fast techniques and methods and we also have videos on our YouTube channel. Additionally, past papers are available on our website at https://instavm.org/competitions/

This will be the fourth year for the competition and each year we've found an increasing number of participants. Last year, over 5000 entries were from the Philippines.

With your assistance the interest and participation in IVMO in the Philippines can be greatly enhanced.

With kind regards

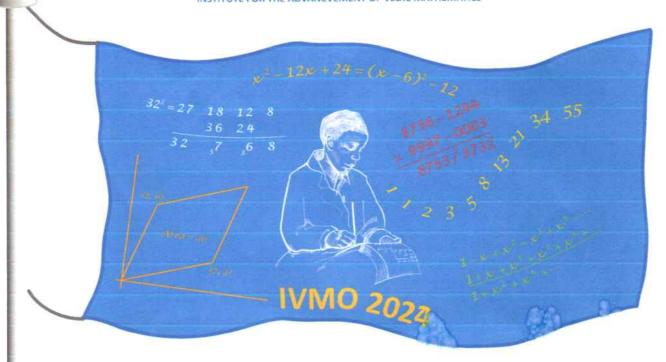
S Flower

James Glover Chairman IAVM

email: instituteavm@gmail.com



INSTITUTE FOR THE ADVANCVEMENT OF VEDIC MATHEMATICS



# **International Vedic Maths Olympiad**

Saturday 30th November 2024

A competition in speed, problem-solving and mathematical acumen in which Vedic maths methods are a distinct advantage

40 multiple choice questions in one hour

6 Levels of entry

Lower Primary - 9 years and under

Upper Primary - 11 years and under

Junior - 13 years and under

Intermediate - 16 years and under

Senior - 18 years and under

Open - All ages

Certificate awards for the top 30% are Gold, Silver, Bronze, in the ratio 1:2:3.

Merit certificates for the next 30%, Participant certificates for the rest.

The competition can be sat either online or offline.

Cost of entry \$5 or equivalent, India - 400 INR , Philippines - 330 PHP.

To participate you must register with a Centre Coodinator (CC).

If you do not have a CC then we can allocate you to one in your locality.

For further information and how to apply

go to https://instavm.org/ivmo-24/

Email - ivmolympiad@gmail.com



### 5<sup>th</sup> Philippine National Vedic Mathematics Olympiad

Since 2021, MATH-Inic Philippines annually organizes two annual national competitions to promote Vedic Mathematics (VM) in Philippine schools: the MATH-Inic Vedic Mathematics National Challenge (MVMNC) and the Philippine National Vedic Mathematics Olympiad (PNVMO). VM is a complete, simplified, and unified system of mathematics which is fast gaining popularity worldwide.

The MVMNC and PNVMO are part of MATH-Inic Philippines' efforts to help improve our math education system, which is among the poorest in the world, based on the latest PISA assessments. Specifically, these competitions aim to

- A. Improve the learners' appreciation of mathematics.
- B. Show that math can be fun, fast, and easy.
- C. Train the participants to use flexible VM solutions rather than the rigid conventional solutions to solve common problems.
- D. Encourage the learners to think of creative approaches to new types of problems.
- E. Show that basic arithmetic principles are applicable in higher math.
- F. Provide excellent training to compete in the International Vedic Mathematics Olympiad, which is the most prestigious VM competition in the world.
- G. The MVMNCs focus on teaching the VM basics while the PNVMOs aim to develop speed in computing.

### 5<sup>th</sup> Philippine National Vedic Mathematics Olympiad

**Date:** Sept 28, 2024

Time: 10:00 to 11:00 AM

### Mechanics:

- 1. The competition will be online, using Google Quiz, and the conduct of the participants will be monitored by the area facilitators and their assistants per district.
- 2. The participants may also be gathered in a room with a reliable internet connection where the facilitator can watch them. In this case, only one device is needed to connect to Google quiz.
- 3. Each contestant must use his own cellphone with personal data to avoid delay and problem in taking the test.
- 4. For DepEd Bataan, registered participants will proceed to the contest venues (Central school per district) for easy administration.
- 5. The competitions will be in six categories based on the age of the contestants on November 30, 2024, which is the date of the 4<sup>th</sup> International Vedic Mathematics Olympiad (IVMO 2024). This is to ensure that the contestants will be able to participate in the same category in the two competitions.

Beginners : 9 years or younger (born after Nov 30, 2014)
Primary : 11 years or younger (born after Nov 30, 2012)
Juniors : 13 years or younger (born after Nov 30, 2010)
Intermediate : 16 years or younger (born after Nov 30, 2007)
Seniors : 18 years or younger (born after Nov 30, 2005)

Open : any age

The The L

1. The participants will be given 60 minutes to answer forty multiple choice questions in Google Quiz.

2. Correct answers to questions 1 to 25 will be given two points each.

3. questions 26 to 35 will be given three points each, and

4. questions 36 to 40 will be given four points each.

5. The top 30% of the competitors in each category will be given Certificates of Recognition and Gold, Silver, and Bronze Medals in the ratio of 1:2:3.

6. The next 30% will receive a Certificate of Merit each.

7. The non-winners will each receive a Certificate of Participation.

8. Most questions can be answered using the traditional methods, but knowledge of Vedic Math is an advantage. Some questions cannot be solved without knowledge of VM sutras and techniques.

**Registration:** The participants shall register with the accredited Area Facilitator in their school, district, or division not later than September 15, 2024. Registration Fee is P300.

**Coverage:** The coverage shall be the same as that of IVMO 2023. The coverage of the Beginners and Primary categories in the 5<sup>th</sup> PNVMO which are referred to as Lower Primary and Upper Primary in the IVMO are the same, but the figures and the problems to be given in the Beginners group would be easier to solve than those in the Primary group. The Seniors and Open Categories will also have the same coverage.

### Beginners and Primary:

Four basic arithmetic operations on whole numbers, fractions, and decimals Simple divisibility rules: 2, 4, 8, 3, 6, 9, 5, 10

Digit sums

Doubling and halving

Nikhilam Multiplication

Squaring numbers ending in 5

Multiplying "complementary numbers"

Vertically and crosswise multiplication.

Nikhilam Multiplication

HCF and LCD using vertically and Crosswise

Linear sequences

Area and perimeter of simple shapes

Primes, square and triangular numbers

Sutras involved:

All from 9 and the last from 10 Vertically and Crosswise By one more than the one before Proportionately By Addition and by subtraction By observation By the Last digits

Juniors:

Four basic arithmetic operations on whole numbers, fractions, and decimals

Fractions to decimal conversion and vice versa

Squaring numbers close to a base

Using bar numbers

Paravartya division

Straight division with 2-digit divisors

Percentages

Direct and indirect proportion

Finding the nth term in a linear sequence

Linear equations

Simple rules of indices

Mean, median and mode

Area and circumference of a circle

Volume and surface Areas

Angles in parallel lines, triangles, and quadrilaterals

### Sutras Involved:

Deficiency

Transpose and Adjust

On the Flag

By Elimination and Retention

All the multipliers

### Intermediate:

Converting fractions with denominators ending in 9 into decimals

Conversion of partially recurring decimals into fractions

Straight division with 3-digit divisors

Simultaneous linear equations

Quadratic equations

Nth terms for quadratic sequences

Completing the square

Difference of two squares

Cubing 2-digit numbers

Combined ratios

Polynomial division with binomial divisors

Polynomial multiplication

Factor theorem

Indices (including fractional and negative)

Using last digits to check the answer

Angles in polygons

Equations of straight lines

Similar areas and volumes

### Sutras Involved:

By completion or non-completion

The general and the particular

Product of the means, product of the extremes

### Open:

Coefficients in polynomial products

Using the first and last terms in polynomials
Series expansion in polynomials
Application of discriminants in quadratics
Divisibility by osculation
Logarithmic and exponential functions
Inverse functions
Method of differences
Areas of shapes in coordinate axes
Equations of circles

### Seniors

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Triples
Pythagorean triples
Triple Geometry
Addition and subtraction of angles
Geometric problems involving triples
Calculus
Chain rule
Integration to find areas
Product and quotient rules
Partial fractions

Sutra involved:

Differential Calculus

### Area Facilitators and Trainers:

The Area Facilitators (AFs) may be accredited for a school, a district, or a division. The are also Facilitators-at-Large for those areas with no AFs.

The AFs are responsible for inviting learners and teachers to join, supervising their training, and administering the 5<sup>th</sup> PNVMO in their area. They will be given free enrollment to a special online review "course" which consist of almost 20 hours of video recordings covering most of the topics covered by the contest.

New AFs may register here <a href="https://math-inic.org/joinf/">https://math-inic.org/joinf/</a> until August 31, 2024. AFs in the 4<sup>th</sup> MVMNC need not register again.

Once registered for the 5<sup>th</sup> PNVMO, the AFs are automatically be considered as affiliate of MATH-Inic Philippines and entitled to discounts and commissions for purchases of MATH-Inic products and courses.

A page profile will be created for every affiliate which can be posted in social media.

Aside from the Area Facilitators, other teachers may help in the training of participants but only those who have completed the Vedic Mathematics Teacher Training Course (VMTTC) or who have passed the required IAVM assessment level will receive their certificate as coach.

Recordings of a special 5-session "course" on VM basics will be conducted for free for trainers under a registered AF.

### **Review Materials:**

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There are a lot of review materials available for students and teachers: Free Resources:

Files section of the Philippine National Vedic Math Olympiad FB page (https://www.facebook.com/groups/419302608636234)
Website of the Institute for the advancement of Vedic Mathematics

(https://instavm.org/competitions/)

Blogs section of the MATH-Inic Philippines site (https://www.math-inic.com/)
MATH-Inic Newsletter. Subscribe now at https://bit.ly/MathinicNewsSignup

See more resources at MATH-Inic Philippines site.

### Other Awards:

Every Area Facilitator will receive a Certificate of Recognition from MATH-Inic Philippines.

Accredited coaches shall receive their Certificate of Recognition Each participating school or division will receive a Certificate of Appreciation. Additional special awards may be given at the discretion of the organizer.

Please write to competitions@math-inic.com for further details.

# MATH-Inic Review Courses (P3,000 each)

A. VMO Topics – Best for those competing in the older groups but have limited knowledge of the VM basics.

### Session 1:

All from 9 and the Last from 10

Addition without Carrying

Subtraction without Borrowing

Digit Sums

### Session 2:

Vertically and Crosswise:

- 1) 2 x 2 multiplication
- 2) developing short cuts
- 3) Longer Multipliers
- 4) Comparing Fractions
- 5) Adding and subtracting fractions
- 6) Finding the HCF and LCM

### Divisibility

- 1) By 2, 5 and 10
- 2) By 3 and 9
- 3) By 4 and 8
- 4) By 6 and 15
- 5) By 11
- 6) By 7

### Session 3:

By one more than the One Before

- 1) Counting
- 2) Squaring numbers ending in 5
- 3) Multiplying complementary numbers

Proportionately: Doubling and halving

- 1) Multiplying by 2
- 2) Multiplying by 4 and 8
- 3) Dividing by 2
- 4) Dividing by 4 and 8
- 5) Dividing by 5, 50, 0.5
- 6) Multiplying by 5, 50 and 5%
- 7) Multiplying by 25, 250 and 125
- 8) Dividing by 25, 250 and 125
- 9) Doubling and halving together

### Session 4

# Bar numbers

Nikhilam or Base Multiplication

- 1) Numbers below the Base
- 2) Numbers above the Base
- 3) One number below, one number above the base
- 4) Different bases
- 5) Other bases
- 6) Base Multiplication with decimals

### Nikhilam Division

- 1) Division by 9
- 2) Division by 8 and 7
- 3) Larger bases

Paravartya Division (Transpose and Apply)

- 1) Division by 11, 12, etc.
- 2) Larger bases
- 3) Algebraic Division

Straight Division – the Crowning Gem of Vedic Mathematics

### Session 5:

Linear sequence

Quadratic Sequences

Areas and Perimeters

### Session 6:

Fractions, Decimals and Percentages

Surface Areas and Volumes

Solutions of Linear simple linear equations

Solution of equations with two variable terms

Solution of a system of equations with two variables

Angles, Triangles and Circles

### Session 7:

Rules of exponents

The First by the First and the Last by the Last

The Product of the Sums is the sum of the Products

Algebraic Multiplication – Binomials

Algebraic Multiplication – Longer Polynomials

Squaring Techniques

The Difference of two squares

### Session 8:

Square roots and cube roots

Cubing using Proportionately

Special Polynomial Multiplication

Special Polynomial Division

### Session 9:

Vedic Methods of solving quadratic equations.

- 1) The Differential is equal to the square root of the Discriminant
- 2) Tirthaji's Method of Factoring
- 3) Using the Average

4) The Product of the Sums is equal to the sum of the Products – using the sum of coefficients in factoring.

Using the Ekadhika

Coordinate Geometry

### Session 10:

The "Art" of Calculus

Fresh Approach to Trigonometry

- B. VMO Q & A: Basic Best for those who are competing in the younger age groups.
  - a) Recordings:
    - A1) IVMO 2021 Primary
    - A2) IVMO 2021 Juniors
    - A3) IVMO 2022 Primary
    - A4) IVMO 2022 Juniors
  - b) Via Zoom (to be recorded and posted ):
    - B1) 2024 MVMNC Beginner Sept 4, 6 to 8 PM
    - B2) 2024 MVMNC Primary Sept 9, 6 to 8 PM
    - B3) 2024 MVMNC Juniors Sept 16, 6 to 8 PM
  - c) Via Zoom (to be scheduled after Sept 28)
    - C1) IVMO 2023 Lower Primary
    - C2) IVMO 2023 Upper Primary
    - C3) IVMO 2023 Juniors
- C. VMO Q and A: Advanced Best for those who know the VM basics but are competing in the Older Categories.
  - a) Recordings:
    - A1) IVMO 2021 Intermediate
    - A2) IVMO 2021 Seniors
    - A3) IVMO 2021 Open
    - A4) IVMO 2022 Seniors
  - b) Via Zoom (schedules to be announced later):
    - B1) 2024 MVMNC Intermediate Sept 7, 4 to 6 PM
    - B2) 2024 MVMNC Seniors Sept 14, 4 to 6 PM

# B2 2024 MVMNC Open - Sept 21, 4 to 6 PM

- c) Via Zoom (to be scheduled after Sept 28)
  - C1) IVMO 2023 Intermediate
  - C2) IVMO 2023 Seniors
  - C3) IVMO 2023 Open

# Olympiad Bundle books:

25 Math Short Cuts - P400

Algebra Made Easy as Arithmetic – P400

Inspirational Maths from India – P500

# 5th Philippine National Vedic Mathematics Olympiad Group Registration Form

-0	be	ı
	Email Address	
	First Name	
	Middle Initial	-
	Last Name	
	Email address to be used in the contest	
	Contact number	
	Birthday (yyyy/mm/dd)	
	Age as of Nov. 30, 2024	,
	Category	
	Trainer/Coach	-
	E-mail address of trainer	•
	School	
	School Address	
	School Principal	
	E-mail address of Principal	
	DepEd Division	

Please add more rows as needed

1) Please make sure that information about the participants are accurately entered, especially the e-mail address

The age of the participants shall be with respect to November 30, 2024. This will be the basis for their qualification in the category they are planning to compete.
 The competition will be in 6 categories.

ege Vise	Open
18 years or younger (those born after November 30, 2005)	Senior
16 years or younger (those born after November 30, 2007)	Intermediate
13 years or younger (those born after November 30, 2010)	Junior
11 years or younger (those born after November 30, 2012)	Primary
8 years or younger (Those born after November 30, 2014)	Beginners

4) The names of the coaches of the participants should be indicated because if the coaches are accredited, they will receive a certificate of recognition

- 4a) Those who have completed the Vedic Maths Teacher Training Course of the Vedic Maths Academy and those who have passed the IAVM level V assessment are eligible to coach in all levels
- 4b) Those who have passed the IAVM level IV assessment are eligible to coach in the Intermediate and younger levels.
- 4c) Those who have passed the IAVM level III assessment are eligible to coach in the Juniors and younger levels
- Those who have passed the IAVM level II assessment are eligible to coach in the Primary and Beginner levels
- Those who have passed the IAVM level I assessment are eigible to coach in the Beginners level
- 4f) The schedule of the IAVM assessments shall be announced later
- 5) Certificates of appreciation will be given to participating schools and divisions, so those information are needed
- 6) Enter only the total number of participants. The amounts will be automatically computed
- 7) The deadline for registration for participants is September 15, 2024
- 8) Please rename this form with your surname in front, i. e., "Prudente\_5th PVVMO. xlsx"
- 9) The renamed form must be submitted as soon as possible toriot later than September 21, 2024