यथा शिखा मयूराणां ।
नागानां मणयो यथा ।।
तद्वद् वेदांगशास्त्राणां ।
गणितं मूर्धनि स्थितम्।।

Just as the crest of the peacock and the gem of the cobra, stays right at the top, similarly study of Mathematics is the topmost among the study of all Vedas and Shastras.

All India
Junior Maths Olympiad

JMO   IOQM   INMO   APMO   IMO

Mathematical Competition
(Academic Year 2023-24)

Junior Maths Olympiad 2024

For Class V, VI, VII & VIII Students
(ICSE, CBSE, State Board Schools)
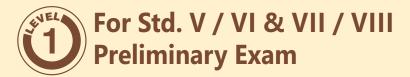
An Appeal

Dear Principals, Maths Teachers & Parents,

Greeting from the Institute of Mathematics Education!

We, at IME, have been dedicated to the cause of nurturing excellence in Mathematics, for several years now. Our endeavor is to stimulate the spirit of enquiry, innovation and creativity amongst children through activities that make Mathematics an enjoyable and interesting pursuit. One such activity that the IME conducts is the Junior Maths Olympiad (JMO).

JMO serves as a strong preparatory foundation for the Indian Olympiad Qualifier in Mathematics (IOQM), conducted by Homi Bhabha Centre for Science Education under National Board of Higher Mathematics, Government of India. So far 57033 students have appeared for MAT and 8822 for JMO. One such JMO Gold Medalist student represented India in International Olympiads of Physics and Astronomy and won laurels for the country. You will find more about Olympiads on the last page of the brochure.

We are aware that you always take several initiatives in making learning interesting and meaningful for students. We look forward to your support, in our endeavor to ignite the spark of curiosity and learning in young minds.

LEVEL 1 — For Std. V / VI & VII / VIII Preliminary Exam

Maths Aptitude Test - 2023 (All India Level)

Date of Exam	Day	Time	Last day of Registration	Tentative Date of Result	Registration Fee
12th Aug. 2023	Sat.	2 p.m. to 4 p.m.	15th July 2023	On or before 13th Sept. 2023	₹ 350/-
2nd Sept. 2023	Sat.	2 p.m. to 4 p.m.	7th Aug. 2023	On or before 27th Sept. 2023	

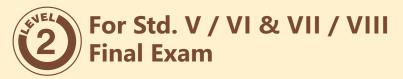**Note :** Schools can choose any one date for their students.

In case a student wishes to appear for the examination but his/her respective school is not participating, then such students will appear as Private Students and should contact IME office for more details at **Phone :** 810 401 1965 or **E-mail :** imethane@gmail.com

Students will appear for exam in their respective schools.

Private Students will appear for the exam at the centers assigned by IME.

Result will be emailed to the schools.

For Private Students, result will be declared on the website www.aiime.org

LEVEL 2 — For Std. V / VI & VII / VIII Final Exam

Junior Maths Olympiad - 2024 (All India Level)

Students scoring 50 and more marks in MAT 2023 will be eligible for JMO 2024.

Date of Exam	Day	Time	Last day of Registration	Tentative Date of Result	Registration Fee
4th Feb. 2024	Sun.	10 a.m. to 12 noon	31st Dec. 2023	On or before 7th Mar. 2024	₹ 400/-

Note : ALL students will appear for the exam at the centres assigned by IME.

MAT : Maths Aptitude Test

Eligibility : Students studying in standard 5th, 6th, 7th and 8th

Examination Details : MAT exam is normally conducted 2 times that is in the month of August and September. Student may opt for any one attempt.

MAT exam is conducted in 2 groups.
- ➢ **Primary Group :** Students of Std. 5th and 6th
- ➢ **Higher Primary Group :** Students of Std. 7th and 8th

MAT Question Paper (Primary and Higher Primary Group)
- ➢ Question paper consists of **50 Multiple Choice Questions**.
- ➢ Each question carries **4 options** of which only one is correct.
- ➢ Each question carries **two marks**.

- ➢ There is **no negative marking** for wrong or unattempted questions.
- ➢ Maximum marks are 100.
- ➢ First 45 questions are of easy to moderate level of difficulty.
- ➢ Last 5 questions are of higher level of difficulty.
- ➢ Time duration is 2 hours.
- ➢ Medium of examination is English.

Syllabus : Primary Group (Std. 5th and 6th)

Study of Numbers, Basic Operations on Numbers, Even, Odd, Prime and Composite Numbers, Tests of Divisibility, G.C.D. and L.C.M., Fractions, Decimal Fractions, Metric Measures, Roman Numerals, Time, Equality, Inequality and Use of Letters, Calendar, Simplification of Expression, Unitary Method, Perimeter and Area, Profit and Loss, Percentage.

Reference Books : Published by IME (Std. 5th and 6th)
- ➢ Study book
- ➢ Past year MAT papers (Topic wise) 2022 - 2011

Syllabus : Higher Primary Group (Std. 7th and 8th)

Operations on Numbers, G.C.D. and L.C.M., Ratio and Proportion, Percentage, Profit and Loss, Simple and Compound Interest, Average, Distance, Speed and Time, Time and Work, Squares and Square Roots, Cubes and Cube Roots, Indices, Algebraic Expressions and Factorization, Equations in One Variable, Identities, Lines and Angles, Triangles, Pythagoras Theorem, Area, Volume and Surface Area, Circle: Chords and Tangents, Polygon.

Reference Books : Published by IME (Std. 7th and 8th)
- ➢ Study book
- ➢ Past year MAT papers (Topic wise) 2022 - 2011

The students can buy the books from IME website www.aiime.org Books will be sent to their residence address.

Awards for MAT

For Students Scoring
1) **40% to 48%** : Passing Certificate
2) **50% to 88%** : Selection Certificate
3) **90% and above** : Selection Certificate & Prize (JMO study material)

Certificates will be sent to respective schools.

Private students should contact IME at Phone : 810 401 1965 / E-mail : imethane@gmail.com

Junior Maths Olympiad - 2024

Candidates scoring 50% and above in MAT 2023 are eligible to appear for JMO 2024.

Eligibility : Students scoring 50% and more in MAT exam **in the same academic year** are eligible to appear for JMO.

Examination Details

JMO exam is conducted only once and normally in the month of February.

JMO exam is conducted in 2 groups.

➢ **Primary Group :** Students of Std. 5th and 6th

➢ **Higher Primary Group :** Students of Std. 7th and 8th

JMO Question Paper (Primary and Higher Primary Group)

➢ Question paper is of Subjective type.
➢ Maximum marks are 100 & Time duration is 2 hours.
➢ Medium of examination is English.

While assessing the answers, more importance is given to the logical approach followed by students.

Syllabus : Primary Group (Std. 5th and 6th)

Crypt Arithmetic, Puzzles like Magic Squares & Magic Stars, Special Numbers like Pentagonal Numbers and Harshad Numbers, Change of Base of Numbers, Permutations, Series, Basic concepts of Geometry.

Reference Books : Published by IME

➢ Study book
➢ Past year JMO papers 2023 - 2012

Syllabus : Higher Primary Group (Std. 7th and 8th)

Number theory (Modular Arithmetic, Concept of Congruence, Application of Wilson Theorem), Sets, Relations and Functions, Permutations and Combinations and Sequence and Series (A.P., G.P., H.P., A.M., G.M., H.M.), Quadratic Equations, Binomial Theorem, Geometry (Triangles, Circles, Cyclic Quadrilaterals).

Reference Books : Published by IME

➢ Study book
➢ Past year JMO papers 2023 - 2012

Awards for JMO

Following awards are given to successful candidates.

1. **Approximately Top 5% students :**
   Ramanujan Scholarship of ₹ 1000/- will be awarded with certificate of honor and Gold Medal.

2. **Approximately Next 7% to 8% students :**
   Kaprekar Scholarship of ₹ 500/- will be awarded with certificate of honor and Silver Medal.

3. **Approximately Next 10% to 12% students :**
   Consolation prize and certificate of honor.

JMO 2023 : Schools Winning Medals

Sr.	School Name	Medal Won
1	Fr. Agnel Multipurpose School, Vashi	6 Silver
2	Smt. Sulochanadevi Singhania School, Thane	5 Silver
3	Apeejay School, Nerul	4 Silver
4	GSS's LCCS Eng Medium School, Saphale	1 Silver
5	Smt. Kantaben Chandulal Gandhi High School, Kalyan	2 Silver
6	St. Joseph Convent Sr. Secondary School, Jalgaon	1 Silver
7	Vidya Niketan School, Dombivali	1 Silver
8	Chakraborty Public School, Raipur	1 Gold & 1 Silver
9	Guardian School (ICSE), Dombivali	1 Gold
10	Hiranandani Foundation School, Powai	1 Gold & 1 Silver
11	P. G. Garodia ICSE, Ghatkopar	1 Gold & 1 Silver

About Mathematics Olympiads

The National Board of Higher Mathematics (NBHM) was set up by Government of India under the Department of Atomic Enegrgy (DAE) in the year 1983 to foster the development of Higher Mathematics in the country.

The Mathematics Olympiad activity was undertaken by NBHM from 1986 and is currently run in collaboration with Homi Bhabha Centre for Science Education, Mumbai. Main purpose of this activity is to support mathematical talent among high school students of our country.

To reach IMO (International Mathematical Olympiad), students have to go through following stages.
(i)   Indian Olympiad Qualifier in Mathematics (IOQM)
(ii) Indian National Mathematical Olympiad (INMO)
(iii) International Mathematical Olympiad (IMO)

IMO

IOQM | INMO

For more information, you may visit following sites :
www.hbcse.tifr.res.in & www.mtai.org.in

OUR JMO CHAMPIONS

Amey Patwardhan

JMO 2013 Gold Medalist. He represented India in International Olympiad of Physics and Astronomy in 2017 and won Gold medal for the country 3 times. Graduated from IISc-Bangalore. Currently pursuing Ph.D. from University of Illinois Urbana-Champaign

Malay Mahajan

JMO 2018 & 2019 Gold Medalist. He has cleared PRMO, RMO, INMO successfully. He was selected for training of International Mathematics Olympiad at Homi Bhabha Centre for Science Education. He won Silver Medal at Homi Bhabha Young Scientist exam.