

Republic of the Philippines Department of Education REGION X – NORTHERN MINDANAO

SCHOOLS DIVISION OF EL SALVADOR CITY

23 July 2021

DIVISION MEMORANDUM No. <u>287</u>, s. 2021

INVITATION TO A 5-DAY ONLINE/VIRTUAL STUDENT-CENTERED TRAINING AND ENHANCEMENT PROGRAM

To: Education Program Supervisor - Mathematics Public Elementary and Secondary Schools Heads Public Elementary and Secondary Mathematics Teachers Mathematics Coordinators Others concerned This Division

- 1. The Math Olympiads Training League Incorporated (MOTLI) would like to invite our division to participate in the upcoming competition - Thailand International Mathematical Olympiad (TIMO) Heat Round 2021 – Philippine Region.
- 2. The activity aims to stimulate and foster young learners' interest in learning mathematics, strengthen the ability of their creative thinking, and widen their International perspective, and promote the development of kindergarten, primary and secondary educational cultures throughout countries.
- 3. To prepare the student-participants, MOTLI offers Virtual Topic-Appropriate Mathematics Program and Simulation (VTAMPS V.5.0) – a 5-day online/virtual student-centered training and enhancement program open to all registered participants. Attendance to the said program is voluntary in nature and shall not be a requirement to join TIMO-Heat.
- 4. Interested applicants are encouraged to follow registration procedure attached in this memorandum.
- 5. Immediate and wide dissemination of this memorandum is desired.

OLGA C. ALONSABE, PhD., CESE Asst. Schools Division Superintendent OIC-Office of the Schools Division Superintendent,



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MATH OLYMPIAD'S TRAINING LEAGUE INC.





July 15, 2021

OLGA C. ALONSABE [OIC] Schools Division Superintendent El Salvador City

Sir/Madam,

Greetings of Peace!

The **Math Olympiads Training League Incorporated (MOTLI)** would like to invite your division to participate in our upcoming competition - Thailand International Mathematical Olympiad (TIMO) Heat Round 2021 - Philippine Region on the schedules indicated below.

COMPETITION	TARGET PARTICIPANTS	HEAT ROUND / FINAL ROUND STAGE	HEAT/ FINAL ROUNDS VENUE
Thailand International	KINDERGARTEN	October 24, 2021 /	ONLINE
Mathematical Olympiad (TIMO)	TO GRADE 12	April 2-3, 2022	

TIMO aims to:

- stimulate and foster young learners' interest in learning mathematics;
- strengthen the ability of their creative thinking;
 - widen their International perspective, and promote the development of kindergarten, primary and secondary education and exchange of educational cultures throughout countries.

To prepare the student-participants, MOTLI offers Virtual Topic-Appropriate Mathematics Program and Simulation (VTAMPS V.5.0) - a 5-day online/virtual student-centered training and enhancement program open to all registered participants. Attendance to the said program is voluntary in nature and shall not be a requirement to join TIMO-Heat.

As partners of learning, MOTLI gives due recognition to schools and coaches based from the performances of their students.



MATH OLYMPIAD'S TRAINING LEAGUE INC.

vve request your good office to help us in the dissemination of this information so that the Philippines can be represented by the best and finest Filipino math wizards in this international correspondence contest.

Medalists in the heat round will then be eligible to join the final round.

For full details, see the next pages.

For registration procedure, information and inquiries, please contact:

MOTLI Secretariat **0966-873-9643** Trunklines: 0961-6090686 / 0909-7205865 / 0967-6771501 Email: <u>motlphilippines@gmail.com</u>

Facebook Page: Math Olympiads Training League

Website: www.motliph.com

Thank you very much and more power!

Respectfully yours,

ENGR. KAREN SY

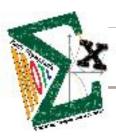
President MOTLI

SCHEDULE FOR THE VTAMPS V.4.0 REVIEW



VTAMPS VERSION 5.0

DATE	September 19, 2021	September 26, 2021	October 3, 2021	October 10, 2021	October 17, 2021
KINDERGARTEN	10.00 - 12.00 NN	10:00 - 12:00 NN	10:00 - 12:00 NN	10:00 - 12:00 NN	10.00 - 12:00 NN
IPEIMARY 1	10.00 - 12.00 NN	10.00 - 12.00 NN	10:00 - 12:00 NN	10:00 - 12:00 NN	10.00 - 12:00 NN
PRIMARY 2	10.00 - 12.00 NN	10300 - 12300 NN	10:00 - 12:00 NN	10800 - 12100 NN	18.00 - 12:00 NN
PRIMARY 3	5:00 - 10:00 AM	6500 - 10500 AM	8:00 - 10:00 AM	5:00 - 10:00 AM	8:00 - 10:00 AM
PRIMARY 4	8:001-10:00.AM	8:00 - 10:00 AM	8.00 - 10:00 AM	5:00 - 10:00 AM	8.00 - 10:00 AM
PRIMARY 5	1:00 - 3:00 PM	1:00 - 3:00 PM	1500 - 3600 PM	1:00 - 3:00 PM	1:00 - 3:00 PM
PRIMARY 6	1:00 - S:00 PM	1:00 - 3:00 PM	1:00 - 3:00 PM	1:00 - 3:00 PM	1:00 - 3:00 PM
SECONDARY 1	3:00 - 5:00 PM	3.00 - 5:00 PM	3:00 - 5:00 PM	3:00 - 5:00 PM	3:00 - 5:00 PM
SECONDWRY 2	3:00 - 5:00 PM	3.00 - 6:00 PM	3600 - 5600 PM	3:00 - 5:00 PM	2:00 - 5:00 PM
SECONDARY 3	6:00 - 7:00 PM	5.00 - 7:00 PM	5:00 - 7:00 PM	6:00 - 7:00 PM	5:00 - 7:00 PM
SEMOR SECONDARY	5:00 - 7:00 PM	5.00 - 7:00 PM	5:00 - 7:00 PM	5:00 - 7:00 PM	5:00 - 7:00 PM



SEC Registration Number : CN 201964950

PRIZES AND REWARDS

A. Students:

Students shall be recognized in the following categories

AWARDS RECEIVED PER STUDENT	POINTS
GOLD	MEDAL AND CERTIFCATE
SILVER	MEDAL AND CERTIFCATE
BRONZE	MEDAL AND CERTIFCATE
MERIT	CERTIFICATE
PARTICIPATION	CERTIFICATE

Additional recognition for top-performing students shall be given trophies based on the global rankings per grade level.

- Champion Trophy : the top scorer
- First and Second Runners Up Trophy: the 2nd top scorer and 3rd top scorer respectively.
- Perfect Scorer Trophy: perfect score

B. School/Coach:

Most Outstanding School Award

Must produce (5) students with Gold awards

- Most Performing School Award
- Able to encourage at least 20 students with ranging awards received from Gold to Merit Awards.
- Most Outstanding Teacher-Coach Award
- A teacher-coach employed in a school institution that train students in at most 3
 - different year levels and accumulates 20 points based from the awards his/her students per competition.

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POINT SYSTEM FOR OUTSTANDING TEACHER-COACH		
AWARDS RECEIVED PER STUDENT POINTS		
GOLD	5	
SILVER	4	
BRONZE	3	
MERIT	2	
PARTICIPATION	1	

Kindergarten Group Kindergarten Group Topics **Balance** Problem \geq **Basic Number Pattern** \triangleright **Basic Number Sequence** Logical Thinking \triangleright **Basic Figure Pattern** IQ Age Problem \geq IQ Date Problem \geq Smart Addition on 1-digit numbers \succ Addition on 1-digit numbers with carrying \triangleright Addition on 2-digit numbers without carrying \geq Smart Subtraction on 1-digit numbers Arithmetic \triangleright Subtraction on 1-digit numbers with carrying \succ Subtraction on 2-digit numbers without carrying \triangleright Balance on an equation \triangleright Introduction on Odd & Even numbers \triangleright Mathematical Leveling \succ **Basic Fibonacci Series** Number Theory Match Equation \geq **Basic Number Pattern** \geq Simple Number Distribution \geq Counting on 2-D Figures & 3-D Figures \geq Counting on number of sides & interior angles \geq Geometry Distinction on 2-D Figures \geq **Basic Figure Pattern** \geq Arranging the numbers in orders \triangleright Simple Distribution \triangleright Counting on specific numbers **Combinatorics** \triangleright Formation of a 3-digit number \succ Comparison on magnitude of 2-digit numbers

Website: http://www.thaiimo.com/



Primary Group				
Topics	Primary 1	Primary 2	Primary 3	
Logical Thinking	 Balance Problem Basic Number Pattern & Sequence Basic Figure Pattern IQ Age Problem & Date Problem Guess on 2-digit numbers 	 Balance Problem Basic Number Pattern & Sequence Basic Figure Pattern IQ Age Problem & Date Problem Guess on 2-digit numbers 	 Periodic Problem Advanced Figure Pattern IQ Age Problem & Date Problem Guess on 3-digit numbers Basic Pigeonhole Principle 	
Arithmetic	 Smart Addition on 1-digit numbers with carrying Smart Subtraction on 1 to 2-digit numbers with carrying Multiplication on 1 to 2-digit numbers without carrying Balance on an equation 	 Smart Addition on 2-digit numbers with carrying Smart Subtraction on 1 to 2-digit numbers with carrying Multiplication on 2-digit numbers with carrying Balance on an equation 	 Gaussian Addition Smart Addition on 3-digit numbers with carrying Smart Subtraction on 3-digit numbers with carrying Multiplication on 3-digit numbers 	
Number Theory	 Introduction on Odd & Even Mathematical Leveling Advanced Fibonacci Series Match Equation Basic Arithmetic Pattern 	 Introduction on Odd & Even Mathematical Leveling Advanced Fibonacci Series Match Equation Basic Arithmetic Pattern 	 Introduction on prime numbers Sum, Difference & Multiples Arithmetic Operation Basic Arithmetic Pattern Simple Divisibility 	
Geometry	 Counting on number of 2-D & 3-D Figures Counting on number of sides & interior angles Distinction on 2-D Figures Basic Figure Pattern 	 Counting on number of 2-D & 3-D Figures Counting on number of sides & interior angles Distinction on 2-D Figures Basic Figure Pattern 	 Counting on number of 2-D Figures Counting on Vertices, Faces & Edges of 3-D Figures Observations about 3-D Figures Basic Concept about Area & Perimeter Relationship between Line Segments, Angles & Figures 	
Combinatorics	 Seven Bridges of Königsberg Arranging numbers in orders Simple Distribution Counting on specific numbers Formation of a 3-digit number 	 Arranging numbers in orders Simple Distribution Counting on specific numbers Formation of a 3-digit number Simple Combination 	 Basic Routing Problem Advanced Distribution Counting on specific numbers Formation of a 3-digit number Excess and Deficiency 	

Primary Group

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Primary Group			
Topics	Primary 4	Primary 5	Primary 6
Logical Thinking	 Periodic Problem Advanced Figure Pattern Chicken Rabbit Theorem Guess on 3-digit numbers Basic Pigeonhole Principle 	 Chicken Rabbit Theorem Speed, Distance & Time Problem Guess on 4-digit numbers by given number properties Advanced Pigeonhole Principle 	 Construction Problem Speed, Distance & Time Problem Guess on 4-digit numbers by given number properties Advanced Pigeonhole Principle
Arithmetic	 Gaussian Addition Smart Addition on 4-digit numbers with carrying Smart Subtraction on 4-digit numbers with carrying Multiplication on 3-digit numbers 	 Advanced Gaussian Addition Smart Calculation on Decimals & Fractions Sum of a series of square numbers Method of Difference equations Smart Addition on 5-digit numbers with carrying 	 Advanced Gaussian Addition Smart Calculation on Fractions Sum of a series of square numbers Sum of a series of cubic numbers Method of Difference equations Sum of Geometric Sequence
Number Theory	 Introduction on prime numbers Sum, Difference & Multiples Arithmetic Operation Relationship between L.C.M & H.C.F Simple Divisibility 	 Advanced Divisibility Number of positive factors Sum of all positive factors Unit digit of a series of <i>n</i>-digit numbers 	 Advanced Divisibility Number of positive factors Sum of all positive factors Unit digit of a series of <i>n</i>-digit numbers
Geometry	 Counting on number of 2-D Figures Counting on Vertices, Faces & Edges of 3-D Figures Observations about 3-D Figures Basic Concept about Area & Perimeter Relationship between Line Segments, Angles & Figures 	 Area & Perimeter of 2-D Figures Ratio of Area of 2-D Figures Volume & Surface Area of 3-D Figures Counting on number of 2-D Figures Relationship between Line Segments, Angles & Figures 	 Area of circle & Circumstance Relationship between Line Segments, Angles & Figures
Combinatorics	 Basic Routing Problem Advanced Distribution Counting on specific numbers Formation of a 3-digit number Excess and Deficiency 	 Advanced Pigeonhole Principle Advanced Routing Problem Combinations & Permutations Principle of Inclusion and Exclusion Excess and Deficiency 	 Advanced Pigeonhole Principle Advanced Routing Problem Combinations & Permutations Principle of Inclusion and Exclusion Simple Probability

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Secondary Group

Tracina	Concern downs 1		Concern de ma 2
Topics	Secondary 1		Secondary 2
	Advanced Periodic Problems	\triangleright	Advanced Pigeonhole Principle
	Speed, Distance & Time Problem	\succ	Guess on 4-digit numbers
Logical Thinking	Advanced Pigeonhole Principle	\succ	Relationship between mean, median & sum
	Guess on 4-digit numbers	\succ	Advanced Distributions
	Relationship between mean, median & sum	\succ	Advanced Periodic Problems
	Operation on directed numbers	\checkmark	Algebraic expression
	 Algebraic expression 	\succ	Factorization
Alasha	Linear Equations	\succ	Introduction on Absolute Value
Algebra	Introduction on Absolute Value	\succ	Simplification on surd form
	Simplification on surd form	\succ	Euclidean Algorithm
	Euclidean Algorithm	\triangleright	Introduction on Inequalities
	Advanced problems on Prime Numbers	A	Periodic remainder problems
	Counting on possible solution(s) on Indefinite equations	\succ	Counting on possible solution(s) on Indefinite equations
Number Theory	Introduction on repeating surd forms	\triangleright	Introduction on repeating surd forms
	Sum of all Digits	\triangleright	Extreme values of a polynomial
	Relationship between L.C.M & H.C.F	\triangleright	Factor Theorem
	Usage of Pythagorean theorem	\triangleright	Advanced usage of Pythagorean theorem
	Characteristics of Congruent Triangles & Similar Triangles	\triangleright	Characteristics of Congruent Triangles & Similar Triangles
Geometry	Area of circle & Circumstance	\succ	Triangle Inequality
Geometry	Relationship between Line Segments, Angles & Figures	\succ	Relationship between Line Segments, Angles & Figures
	Knowledge on Rectangular Coordinate System		Knowledge on Rectangular Coordinate System
	Volume & Surface Area of 3-D Figures	\triangleright	Concepts about angle bisectors
	Advanced Pigeonhole Principle	\checkmark	Advanced Pigeonhole Principle
	Advanced Routing Problem	\succ	Advanced Routing Problem
Combinatorics	Combinations & Permutations	\succ	Combinations & Permutations
Comonatories	Principle of Inclusion and Exclusion	\succ	Principle of Inclusion and Exclusion
	Simple Probability	\succ	Simple Probability
	Triangle Inequality	\triangleright	Counting on Like & Unlike Terms of a polynomial

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Secondary Group

Topics	Secondary 3		Senior Secondary Group (S4 – S6 in ONE group)
	 Advanced Pigeonhole Principle 	\triangleright	Advanced Pigeonhole Principle
	Guess on 4-digit numbers	\succ	Guess on 5-digit numbers
Logical Thinking	Relationship between mean, median & sum	\triangleright	Relationship between mean, median & sum
	Advanced Distributions	\triangleright	Advanced Distributions
	Advanced Periodic Problems	\triangleright	Advanced Periodic Problems
	Sum & Product of roots of a quadratic equation	\triangleright	Sum & Product of roots of a quadratic equation
	Algebraic expression	\triangleright	Algebraic expression
Alashus	Introduction on Absolute Value	\triangleright	Introduction on Absolute Value
Algebra	Simplification on surd form	\triangleright	Simplification on surd form
	Euclidean Algorithm	\triangleright	Euclidean Algorithm
	Introduction on Inequalities	\triangleright	Introduction on Inequalities
	Deriodie remainder problems	\checkmark	Periodic remainder problems
	 Periodic remainder problems Counting on possible solution(s) on Indefinite equations 	\triangleright	Counting on possible solution(s) on Indefinite equations
Number Theory	 Counting on possible solution(s) on Indefinite equations Introduction on repeating surd forms 	≻	Introduction on repeating surd forms
Number Theory	 Extreme values of a polynomial 	≻	Extreme values of a polynomial
	 Modular Arithmetic 	\triangleright	Modular Arithmetic
	Wodular Antilinetic	\triangleright	Introduction on complex numbers
	Advanced usage of Pythagorean theorem	\triangleright	Advanced knowledge on Rectangular Coordinate System
	Menelaus' Theorem	\triangleright	Menelaus' Theorem
Geometry	Relationship between Line Segments, Angles & Figures	\succ	Relationship between Line Segments, Angles & Figures
	Advanced knowledge on Rectangular Coordinate System	\succ	Circumcentre, Incentre, Centroid & Orthocentre
	> Trigonometry	\triangleright	Trigonometry
	Advanced Pigeonhole Principle	\triangleright	Advanced Pigeonhole Principle
	Combinations & Permutations	\triangleright	Combinations & Permutations
Combinatorics	Principle of Inclusion and Exclusion	\triangleright	Principle of Inclusion and Exclusion
	Advanced Probability	\triangleright	Advanced Probability
	Counting on Like & Unlike Terms of a polynomial	\triangleright	Counting on Like & Unlike Terms of a polynomial

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