

SIU SOUTHERN ILLINOIS UNIVERSITY
CARBONDALE **STEM EDUCATION
RESEARCH CENTER**



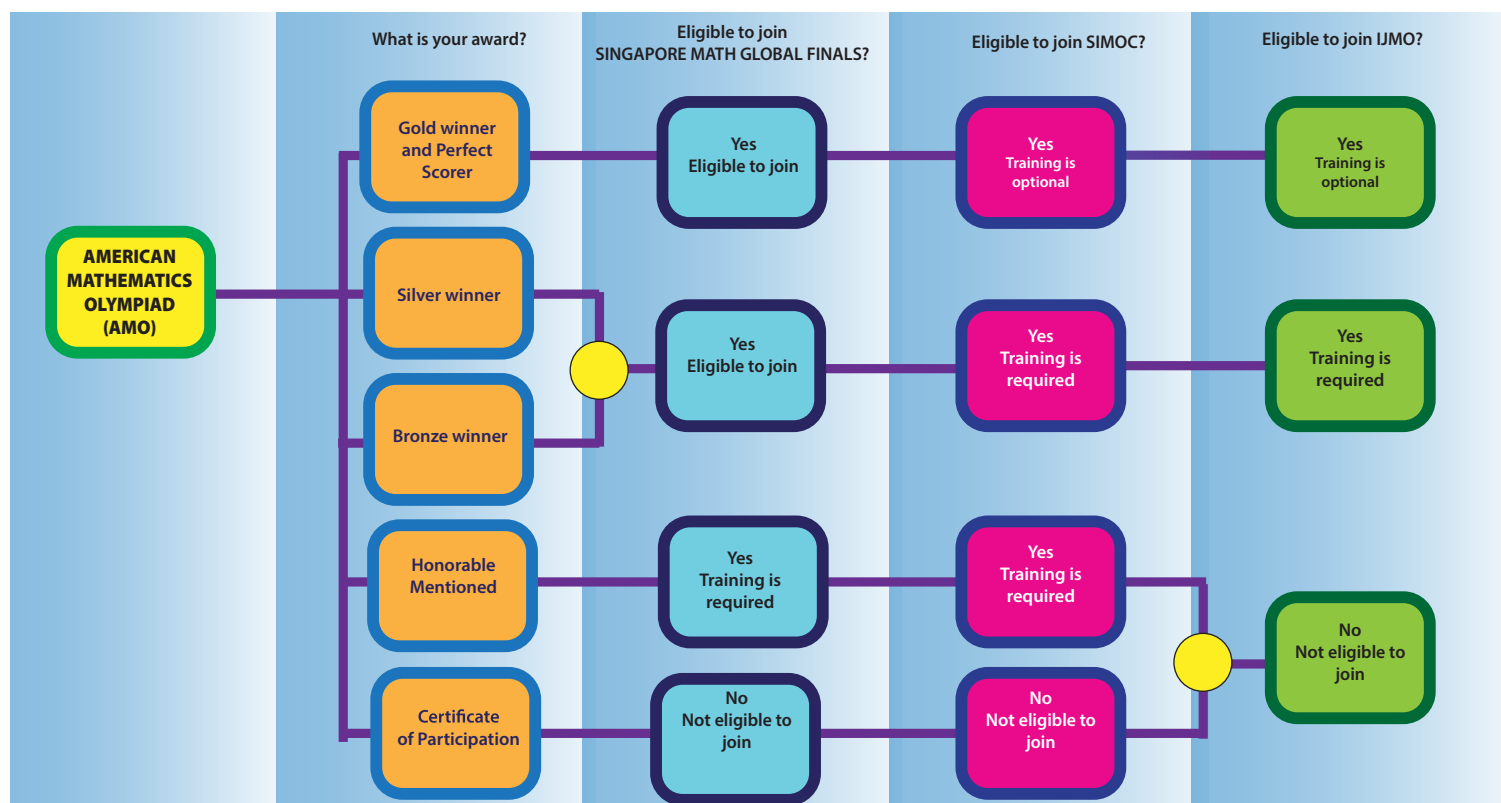
American
Mathematics Olympiad

INFO PACK
International - 2025

SIMCC Competition Timeline



SIMCC Competition progression





There is a strong demand globally for STEAM talent led by corporations to get staff for their businesses. Hence, SIT is a great initiative to identify these talents for corporations and also various organisations giving scholarships to prepare students for STEAM.

STEAM INTERNATIONAL TOURNAMENT (SIT)

SIMCC and Scholastic Trust Singapore (STS) is delighted to launch the STEAM International Tournament (SIT). SIT is a collection of reputable academic competitions in Science, Mathematics, Informatics, cybersecurity, Artificial Intelligence(AI) and Arts which help distinguish students' achievements in STEAM. Students who win awards in any of the qualifying contests below score points for the SIT Awards:

1. **Science** = Vanda National Junior Science Olympiad (VNJSO)
2. **Informatics** = National Junior Informatics Olympiad (NJIO), National Junior Cybersecurity Olympiad (NJCO) and National Junior AI Olympiad(NJAIIO)
3. **Arts** = Singapore International Art Tournament (SIAT)
4. **Mathematics** = American Mathematics Olympiad (AMO) and Singapore and Asian Schools Math Olympiad (SASMO)

Rules

1. Each student will be awarded SIMCC Scholarship points from each contest.
2. SIT points must be collected within one academic year from August 1 to July 31.
3. The SIT points collected will determine the SIT Award won for that year.

IJHS Scholarship points

Grant additional IJHS Scholarship points based on the combined awards received from AMO/SASMO, NJIO, NJOS, NJAO, and NJCO.

SIT Star Award → Earn extra 3 IJHS Scholarship points (SPs)

SIT Platinum Award → Earn extra 2 IJHS Scholarship points (SPs)

SIT Tri Award → Earn extra 1 IJHS Scholarship points (SPs)

SIT Award → Earn extra 0.5 IJHS Scholarship points (SPs)

SIT Star Awardees will be trained as SIMCC STEAM camp assistants in 2026 and awarded certificates upon completion.

Top 5 SASMO Winners from each grade by country* get Contest Scholarship (CS) to compete in MMT.

No Travel needed, and earn more IJHS Scholarship points to advance to top schools and universities with scholarships

Earn additional scholarship points

Table of scholarship points from all SIMCC competitions

SIT awards will be announced together with the induction of IJHS Scholars annually on August 15, 2026

National Contest award	Perfect Score	Gold	Silver	Bronze
IJHS Scholarship Point	3	2	1	0.5

Combined Qualifying National Contest IJHS Scholarship Points	≥ 10 points	8 to 9 points	6 to 7 points	5 points
Award	SIT Star	SIT Gold	SIT Silver	SIT Bronze
Extra IJHS Scholarship Point For Award	+3 ISPs	+2 ISPs	+1 ISP	+0.5 ISP

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AMERICAN MATHEMATICS OLYMPIAD



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Message from Scholastic Trust Singapore Limited (STS) President

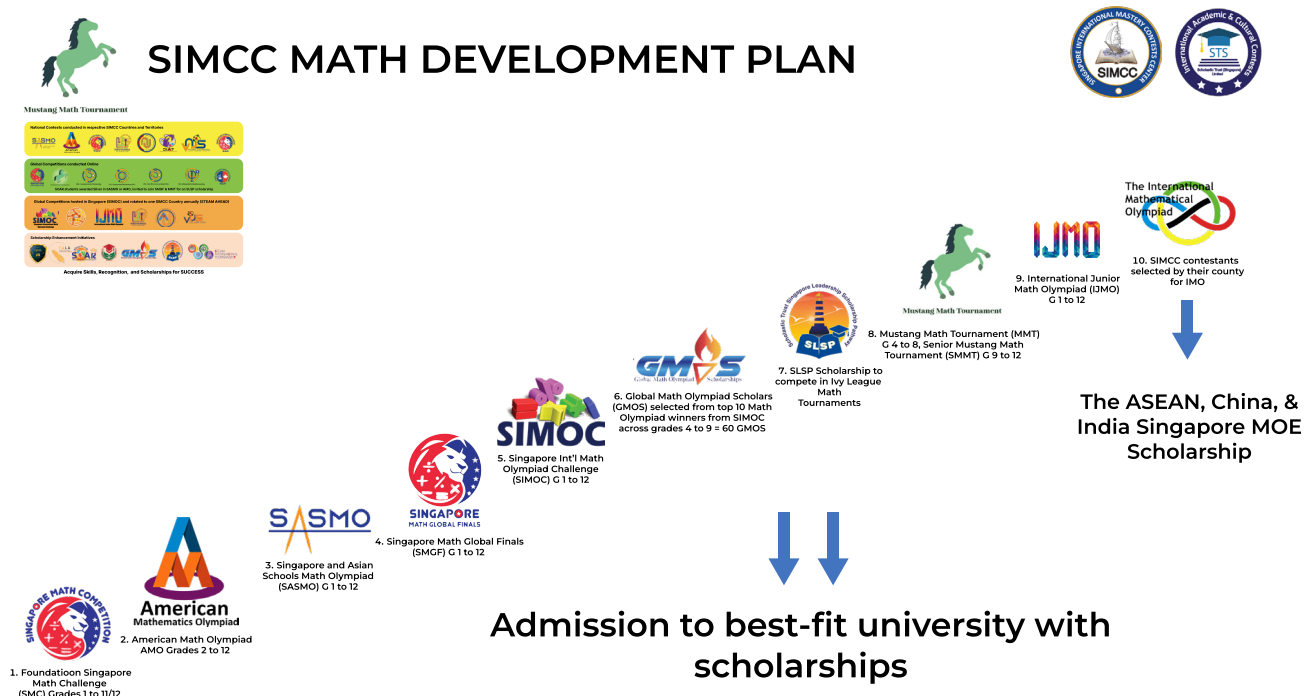
Unlock your mathematical potential and pave your way to top universities by competing in AMO 2025. Excel and earn scholarships for a bright future!

Subject: AMO 2025 – Your Gateway to Scholarships, Global Recognition, and Academic Excellence

Dear Students, Parents, and Educators,

Are you ready to unlock your mathematical potential and take the first step toward a future filled with opportunity? The **American Mathematics Olympiad (AMO)** 2025 is more than just a competition—it's a launchpad to scholarships, global recognition, and admission into best-fit universities.

At **SIMCC**, we've built a comprehensive development pathway, starting with entry-level assessments like the **Singapore Mathematics Challenge (SMC)**. As students progress, they earn **Individual Scholarship Points (ISPs)** for every Bronze or higher award. Once they accumulate **4 ISPs**, they are inducted—free of charge—into the prestigious **International Junior Honor Society (IJHS)**.



🌟 Why AMO Matters

AMO is the ideal starting point for students to build confidence and success in math competitions. With structured training and guidance, students gain the skills and mindset needed to thrive. To further support our contestants, SIMCC has partnered with leading global training organizations. All our contests now feature a **Learning Management System (LMS)** and are backed by expert coaching. Through national contests in **mathematics, science, informatics, cybersecurity, Artificial Intelligence (AI) and the arts**, students are encouraged to explore the full **STEAM** spectrum.

Recognition Beyond Borders

Winners of national contests receive free entry into the **STEAM International Tournament (SIT)**—a prestigious platform where awards can unlock major scholarships, including those offered through the **Scholastic Trust Singapore's Leadership Scholarship Pathway (SLSP)**.

Global Finals, Local Access

National winners are invited to represent their countries in SIMCC's **global finals**, held online or on the same day worldwide. With over **300,000 contestants across 54 countries and territories**, these events offer international exposure at a modest cost—without the need for travel. Contestants begin earning **Team Scholarship Points**, which, combined with ISPs, form their **Overall Scholarship Points (OSPs)**—a powerful academic mileage system that can be redeemed for SLSP scholarships.

National Assessments conducted in each Respective Countries and Territories



National Contests conducted in respective SIMCC Countries and Territories



Global Competitions conducted Online



SOAR students awarded Silver in SASMO or AMO, invited to Join SMGF & MMT for on SLSP scholarship

Global Competitions hosted in Singapore (SIMOC) and rotated to one SIMCC Country annually (STEAM AHEAD)



Acquire Skills, Recognition, and Scholarships for SUCCESS

Pathway to Ivy League Math Tournaments

In partnership with a student Math Organisation from Stamford University, Mustang Math Tournaments (MMT) provides training for high achieving students In **Grades 4 to 8**, and by **AY 2026-2027**, those In Grades 9 to 12, are encouraged to join the **Senior Mustang Math Tournament (SMMT)**. MMT and SMMT prepare students for elite competitions such as:

- Stanford math Tournament (SMT)
- Johns Hopkins math Tournament (JHMT)
- Harvard-MIT Math Tournament (HMMT)
- Princeton University Mathematics Competition (PUMaC)

Flagship Events to Aim For

Don't miss the **Singapore International Math Olympiad Challenge (SIMOC)**, held annually in July in Singapore for the past 11 years. Also, set your sights on the **STEAM AHEAD Global Finals**, which have taken students to exciting destinations including **Phnom Penh, Bangkok, Kuala Lumpur, Bali, Istanbul, and Shenzhen (2025)**—with **Tashkent (2026)** on the horizon.

Thank you for being the driving force behind AMO's success. Together, we are shaping futures and uplifting lives through education. The journey ahead is filled with promise, and we are honored to walk it with you.

With best regards,

Henry Ong

President, SIMCC and Scholastic Trust Singapore

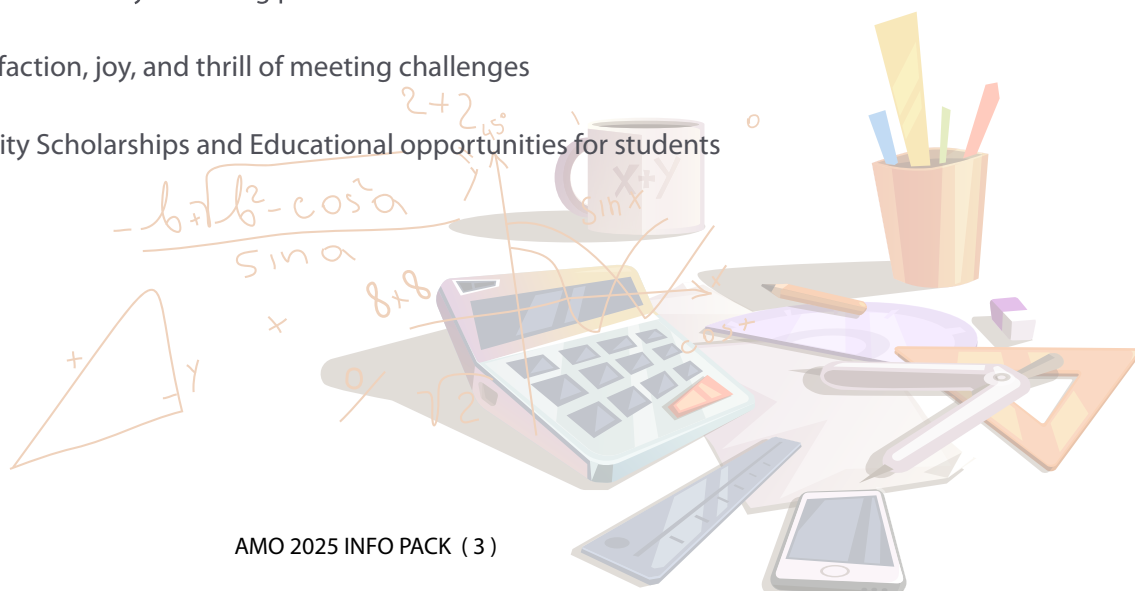
Overview

American Mathematics Olympiad (AMO) is jointly developed by Southern Illinois University and SIMCC to give more STEM/STEAM opportunities.



Objectives

- To stimulate enthusiasm and a love for Mathematics
- To introduce important Mathematical concepts
- To teach major strategies for problem solving
- To develop Mathematical flexibility in solving problems
- To provide for the satisfaction, joy, and thrill of meeting challenges
- To open-up US University Scholarships and Educational opportunities for students





About STS

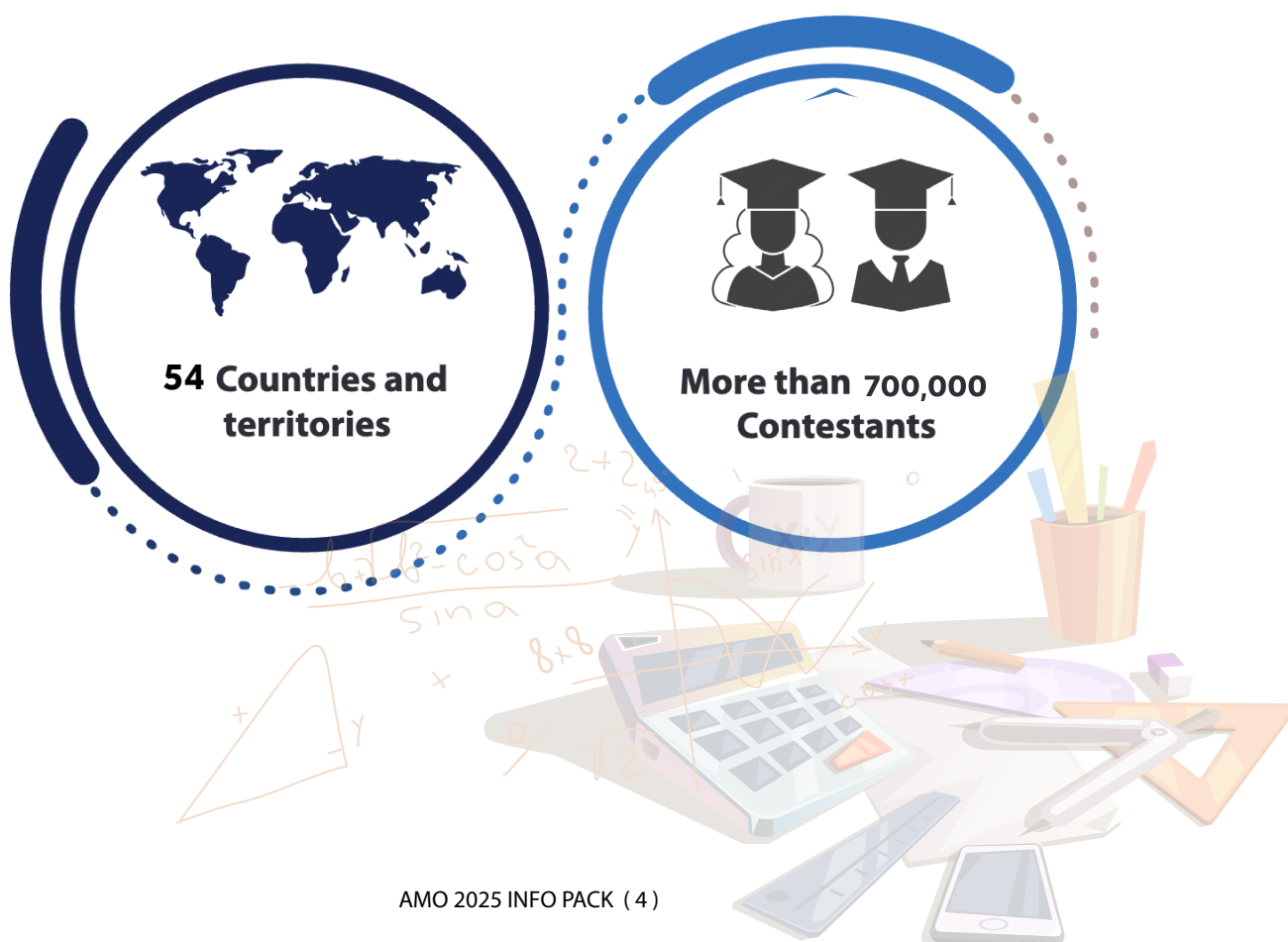
STS provides over \$2 million in scholarships to support the SIMCC/STS Leadership Scholarship Program (SLSP), the International Junior Honor Society (IJHS), and the Young Achievers Leadership Academy (YALA)—a transformative 5-day, 4-night residential leadership camp. In addition, STS funds a wide range of academic contests and enrichment workshops designed to empower students globally.



About SIMCC

SIMCC is a social enterprise and donates 20% of her contest revenues to support students and teachers. SIMCC is one of the largest academic contest organizers in Singapore and Asia. We are committed to popularizing education through thinking games and competitions, and allowing students to interact, cooperate and build lasting bonds of friendship that transcend borders.

SIMCC has sales offices Indonesia (Jakarta), and Singapore along with more than 700,000 participants from over 100,000 schools participated in our competitions. In 2025, we now have more than 54 countries and territories.



Format of the Test

American Mathematics Olympiad is open to all Primary 2 to 6, Secondary 1 to 4, and Junior College 1 and 2 students worldwide (or Grades 2 to 12).

The duration of the AMO is 1 hour and 30 minutes for each level.

Grade 2 to 12 - 25 questions

Section A

15 MCQ
questions
(3 points each)
Total 45 points

Section B

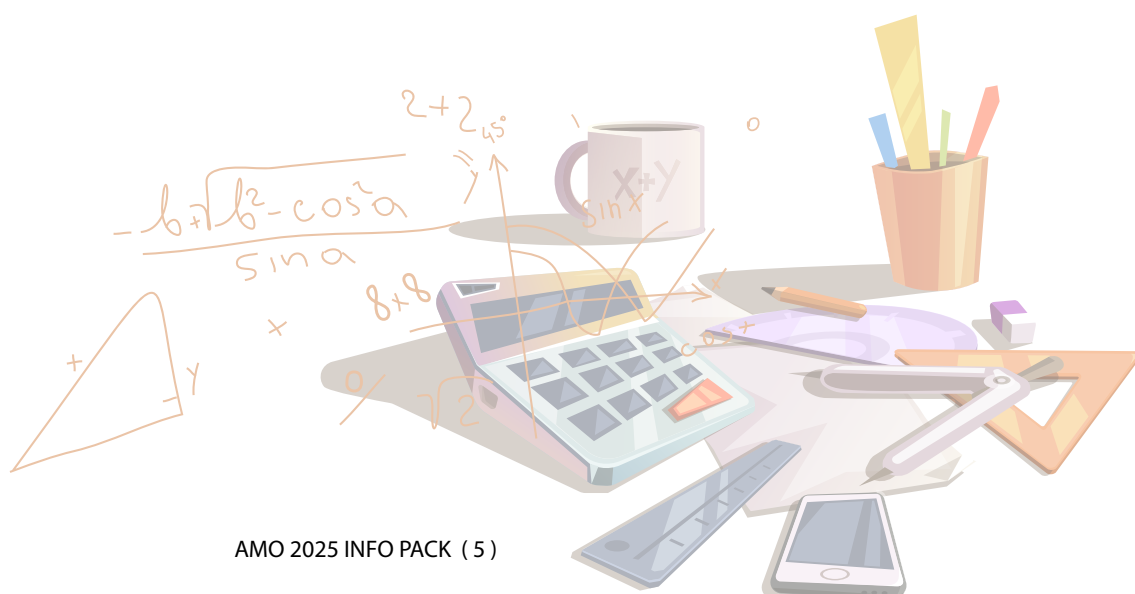
5 Open ended
questions
(5 points each)
Total 25 points

Total = 100 points with no points deducted from wrong answers.

Calculators are not permitted during the contest.

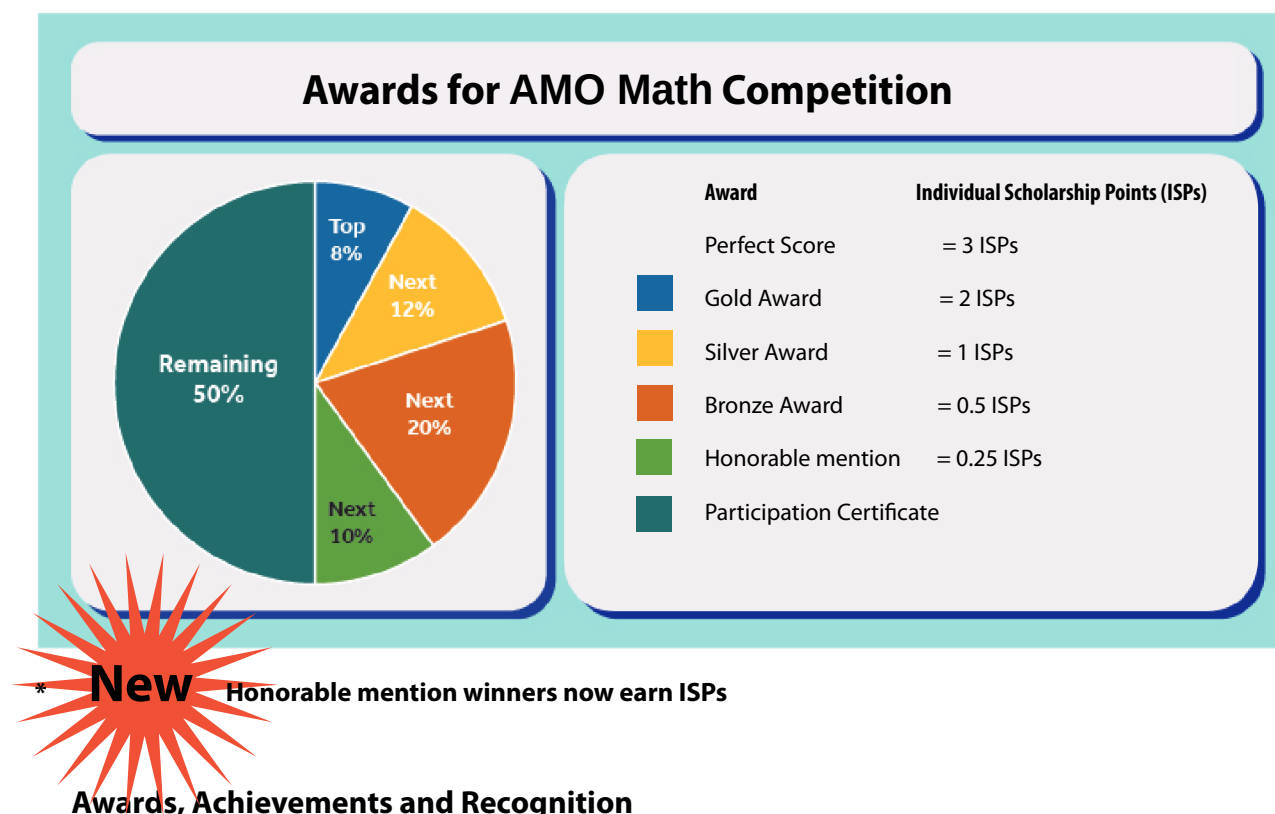
About the Common Core State Standards for Mathematics

In developing the current AMO test items, the Common core State Standards for Mathematics¹ (CCSSM, 2010) are consulted and extended in the context of AMO mathematics competition and its international audience. The articulations and extensions do not necessarily represent the views of the Authors of the CCSSM standards and are solely those of the AMO team for the purposes of mathematical engagement and enrichment of young learners.



Award

Earn SIMCC Individual Scholarship Points (ISPs) to qualify for induction to the International Junior Honor Society



Students

Participants will receive the following:

1. Certificate and medal for Gold, Silver and Bronze winners.
2. Certificate, Personalized medal for Perfect Scorers.
3. E-cernificates are also given to participants who qualify for Honourable Mention and Certificate of Participation.
4. Each participant can view their AMO performance and statistical report that show their proficiencies across various topics, comparing their achievements with those of peers in the same grade on an international scale.

School

Participating schools will receive the following:

1. A certificate of recognition is awarded to schools that enrolls 100 or more students for participation in the AMO competition..
2. Every school will be provided with online performance and statistical report for each participating student, aiding teachers in comprehending their students' strengths and areas for improvement. Additionally, schools will receive competition-related statistics to facilitate curriculum enhancements.
3. In addition, the top scorer for every 100 AMO contestants from each school will be awarded a LMS (training) and SLSP contest scholarship to compete in the Singapore Math Global Finals held Online on March 7 , 2026.

Certificates & Medals



The Top 40% of the participants will receive an award certificate and a medal. All winners are invited to



PERFORMANCE STATISTICAL REPORT

Performance by Questions

Table below shows which questions student got correct.

Q1 Correct	Q2 Correct	Q3 Correct	Q4 N/A	Q5 Correct
Q6 Correct	Q7 Correct	Q8 Correct	Q9 Correct	Q10 Correct
Q11 Correct	Q12 N/A	Q13 Correct	Q14 N/A	Q15 Incorrect
Q16 Correct	Q17 Correct	Q18 Correct	Q19 Correct	Q20 Correct
Q21 Correct	Q22 Correct	Q23 N/A	Q24 Correct	Q25 Correct
Q26 Correct	Q27 Incorrect	Q28 Incorrect	Q29 Incorrect	Q30 N/A

Performance by Topics

Percentage on top: Student's average by topics | Percentage middle: School average by topics | Percentage below: National average by topics.

ARITHMETIC AND NUMBER CONCEPTS 100% 76% 76%	ALGEBRAIC THINKING AND PATTERNS 50% 45% 45%	REASONING AND PROBLEM SOLVING 71% 43% 43%	ART OF COUNTING 43% 29% 29%	GEOMETRIC AND SPATIAL REASONING 67% 27% 27%
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Grade Performance Analysis

Topic	Your Score	School Range	Average
ARITHMETIC AND NUMBER CONCEPTS	30	18 - 30	22

Each participant will receive a digital report detailing their performance, along with dynamic statistical analysis that highlights their strengths and areas for improvement across different topics. Additionally, this report includes a comparison of their performance with that of their peers in the same grade, both within their country or territory.

These reports can be downloaded from SIMCC Member Development Portal (MDP) by students, parents or teachers.

Home



Student and Competition Info

Name	Index No	Competition Year	Competition Name
GOH ZHUO	060220002191	2022	SASMO 2022

Award

BRONZE

Score

35

Task's Results Info

Number of Tasks	Number of Correct Answer	Number of Wrong Answer	Number of Blank Answer
25	10	14	1

Global Rank

global_rank	Population	MAX	AVG	MIN	MED
BRONZE 294	3029	100.00	29.81	0.00	18.00

Country Rank

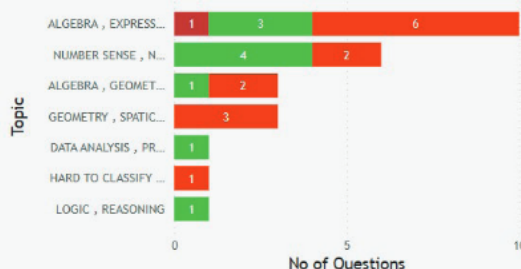
country_rank	Population	MAX	AVG	MIN	MED
25	87	97.00	28.93	0.00	22.00

School Rank

school_rank	Population	MAX	AVG	MIN	MED
1	1	35.00	35.00	35.00	35.00

Topic vs Result

Result ● Blank ● Correct ● Wrong



Detail Report

Task ID	Task order	Topic	Result	Level of Difficulty	% global correct ratio	% cont
1	1	NUMBER SENSE, NUMBER THEORY	Wrong	Easy	38.43%	4
2	2	NUMBER SENSE, NUMBER THEORY	Wrong	Easy	32.65%	2
3	3	ALGEBRA, EXPRESSIONS, PATTERNS, SEQUENCES	Correct	Easy	50.97%	5
4	4	ALGEBRA, EXPRESSIONS, PATTERNS, SEQUENCES	Correct	Easy	49.19%	5
5	5	NUMBER SENSE, NUMBER THEORY	Correct	Easy	29.38%	2
6	6	NUMBER SENSE, NUMBER THEORY	Correct	Easy	39.65%	4
7	7	ALGEBRA, EXPRESSIONS, PATTERNS, SEQUENCES	Wrong	Easy	42.62%	4
8	8	ALGEBRA, GEOMETRY, PYTHAGOREAN THEOREM, SIMILAR TRIANGLES	Correct	Easy	41.37%	3
9	9	GEOMETRY, SPATIAL REASONING	Wrong	Easy	21.59%	2
10	10	HARD TO CLASSIFY, OTHER TOPICS	Wrong	Easy	42.62%	3
11	11	NUMBER SENSE, NUMBER THEORY	Correct	Easy	24.33%	2
12	12	ALGEBRA, EXPRESSIONS, PATTERNS, SEQUENCES	Wrong	Easy	34.04%	1
13	13	LOGIC, REASONING	Correct	Easy	51.93%	6
14	14	DATA ANALYSIS, PROBABILITY, STATISTICS	Correct	Easy	32.22%	4
15	15	GEOMETRY, SPATIAL REASONING	Wrong	Easy	22.81%	2
16	16	ALGEBRA, EXPRESSIONS, PATTERNS, SEQUENCES	Wrong	Medium	18.03%	1

Qualifying for Competitions and Programs



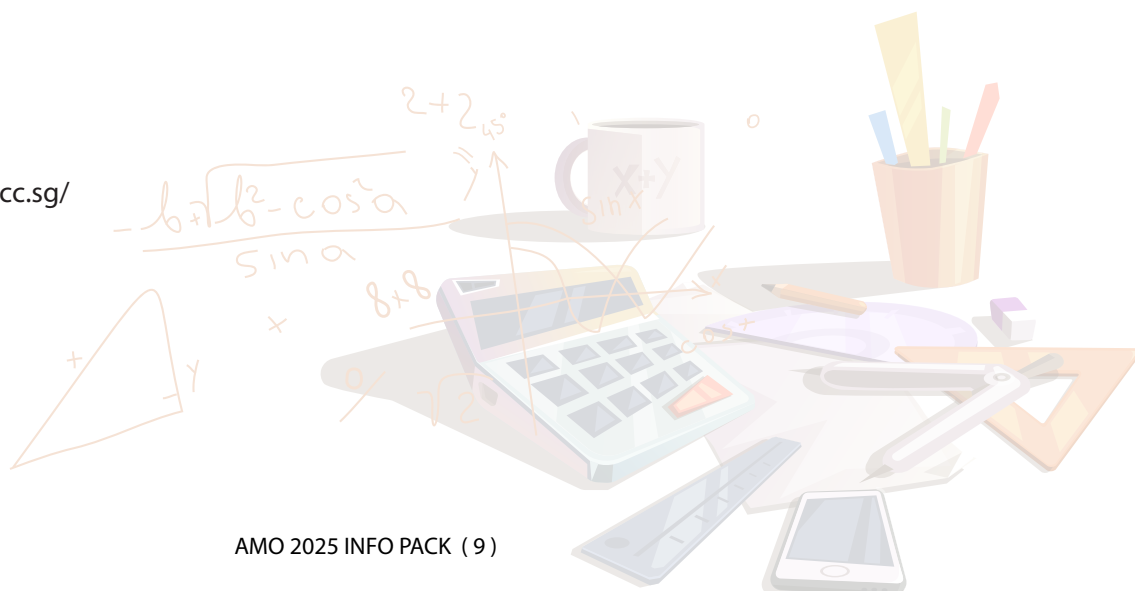
The top 40% winners are invited to compete at SIMOC 2025. The top 20% of winners are invited to compete in STEAM AHEAD 2025 International Junior Math Olympiad (IJMO). Students must register with the SIMCC Country Council Partner (CCP) and contest entry is available on a first come first served basis, so register as soon as possible to avoid disappointment.



Singapore International Math Olympiad Challenge (SIMOC) 2026 invitations are given out to the top 40% of winners from SASMO 2026, SMKC 2026 and AMO 2025. The top 50% of these Winners are invited for Singapore Math Global Finals 2026. In all, there are over 96,000 qualifiers and there are only 2400 places available for these top students to compete in SIMOC Singapore. So, sign up as soon as possible to take your spot to vie against the best mathematics students to win one of the 60 Global Math Olympiad Scholarships for grades 4 to 9 students where you will be trained by International Mathematics Olympiad (IMO) Coaches to qualify for your country's Math Olympiad team.

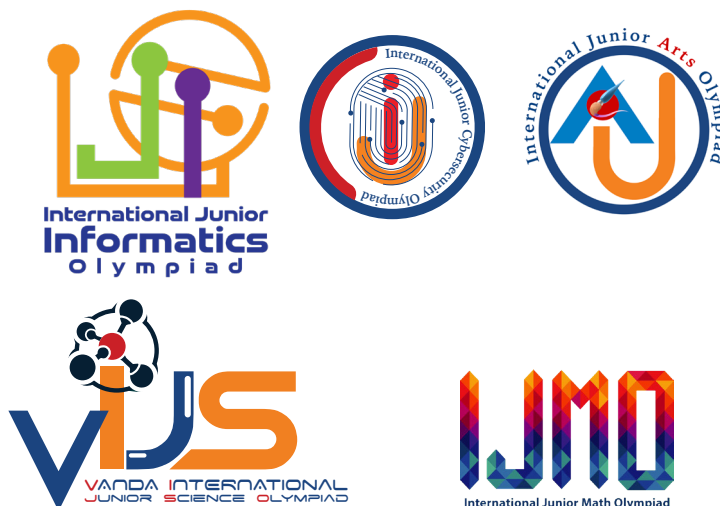
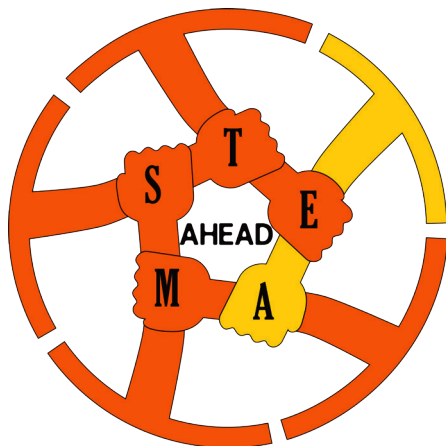
Please refer to the SIMCC comprehensive contests info pack for more details on SIMOC or visit our website.

WEBSITE: <https://simoc.simcc.sg/>



STEAM AHEAD

(A combination of 5 COMPETITIONS: IJMO, VANDA IJSO, IJIO, IJCO, and IJAO.)



School

STEAM stands for Science, Technology, Engineering/Entrepreneurship, Arts and Mathematics. STEAM AHEAD is our initiative to combine our international academic competitions to educate students and bring them international exposure about possible career choices in these fields.

So, STEAM AHEAD offers multiple opportunities for students to win individual awards in IJMO, VANDA IJSO, IJIO, IJCO, and IJAO plus Team awards for VANDA IJSO, IJIO, and IJCO.

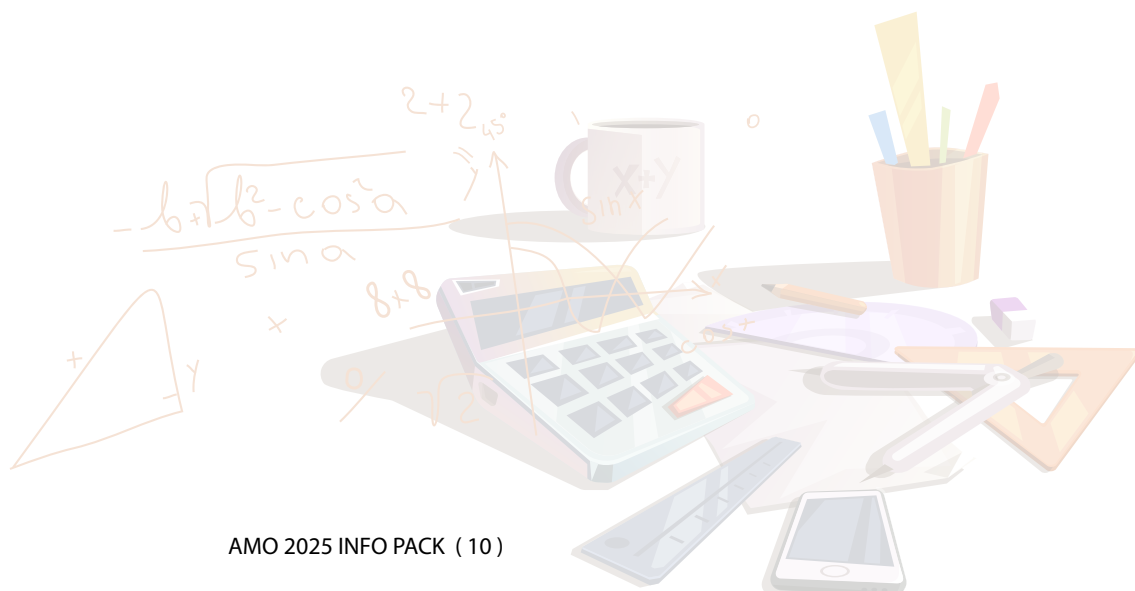
Overall Champions in each grade level for IJMO, IJIO, IJCO and VANDA IJSO will also be awarded, along with multiple contest winners from IJMO, VANDA IJSO, IJIO, IJCO, and IJAO will be awarded the President's Award for Excellence in STEAM (PAExS) - more than 100 awards can be won at STEAM AHEAD 2025!

PAExS Steam Ahead Awards:

1. PAExS Star = Students win 3 Gold medals from individual round
2. PAExS Gold = Students win 2 Gold medals from individual round

Please refer to the SIMCC comprehensive contests info pack for more details on STEAM AHEAD or visit our website.

WEBSITE: <https://steamahead.simcc.org>



Syllabus

AMO reserves the rights to change the syllabus without any prior notice.

GRADE 2-4 (PRIMARY 2-4)

- Arithmetic and Statistics
- Geometry and Mensuration
- Solving word problems using model method (or any other non-algebraic methods)
- Non-routine problem solving (including number patterns, divisibility tests, spatial visualisation, logic problems and simple cryptarithms)

GRADE 5-6 (PRIMARY 5-6)

- Arithmetic and Statistics
- Geometry and Mensuration
- Solving word problems using model method (or any other methods including algebra)
- Non-routine problem solving (including number patterns, divisibility tests, spatial visualisation, logic problems and cryptarithms)

GRADE 7 (SECONDARY 1)

- Arithmetic and Algebra
- Geometry, Graphs and Mensuration
- Statistics
- Non-routine problem solving (including number patterns, divisibility tests, spatial visualisation, logic problems and cryptarithms)

GRADE 8 (SECONDARY 2)

- Arithmetic and Algebra
- Geometry, Graphs and Mensuration
- Pythagoras' Theorem
- Statistics
- Non-routine problem solving (including number patterns, divisibility tests, spatial visualisation, logic problems and cryptarithms)

GRADE 9-10 (SECONDARY 3-4)

- Arithmetic and Algebra
- Geometry, Graphs and Mensuration
- Pythagoras' Theorem and Trigonometry
- Statistics and Probability
- Non-routine problem solving (including number patterns, divisibility tests, spatial visualisation, logic problems and cryptarithms)

GRADE 11-12 (JUNIOR COLLEGE 1-2)

- Arithmetic and Algebra
- Geometry, Graphs and Mensuration
- Pythagoras' Theorem and Trigonometry
- Statistics and Probability
- Non-routine problem solving (including number patterns, divisibility tests, spatial visualisation, logic problems and cryptarithms)

Sample Questions

Grade 2-4 (Primary 2-4)

For more sample questions, visit <https://form.simcc.org/lms-home/>

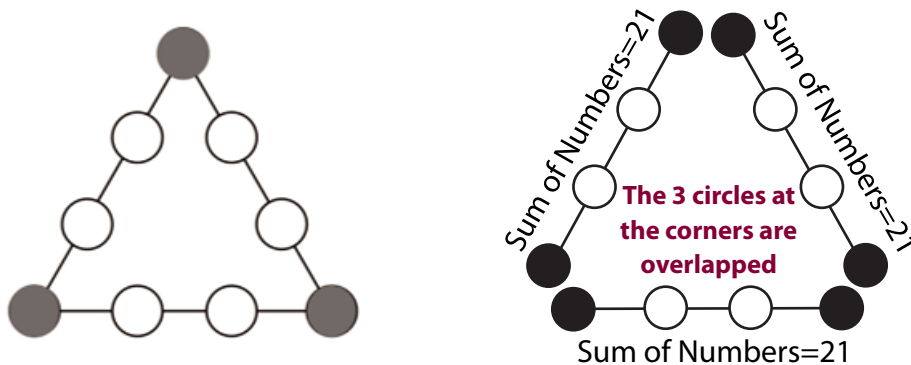
Please register an account at our Member Development Portal (<https://form.simcc.org/>) to access the questions.

Grade 2/Primary 2: Jessie has 74 pieces of candy. Her friend Frank said: "If you give me 19 of your candies, we will both have the same number of candies". How many pieces of candy does Frank have ?

Solution: If Jessie gives 19 of her candies to Frank, then she would have $74 - 19 = 55$ candies left. If Frank receives 19 pieces of candy from Jessie, they will have both the same number of candies which is 55. Hence, Frank has $55 - 19 = 36$ pieces of candy.

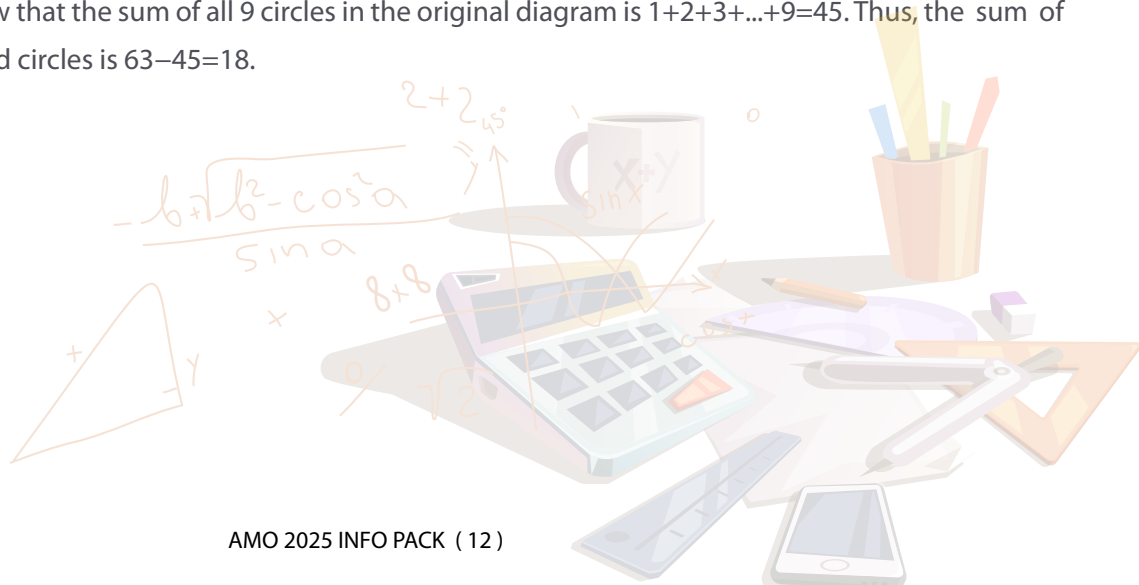
Answer: 036

Grade 3/Primary 3: The numbers 1 through 9 are placed in the diagram, one in each circle. The sum of the numbers along each line is 21. What is the sum of the numbers in the shaded circles ?



Solution: Strategy: Find the total sum. Since the sum of numbers on each side is 21, then the total sum of numbers in the 12 circles (as shown on the right) is $21 \times 3 = 63$. Take note that each number in a shaded circle is counted twice in the sum 63. We also know that the sum of all 9 circles in the original diagram is $1 + 2 + 3 + \dots + 9 = 45$. Thus, the sum of the numbers in the shaded circles is $63 - 45 = 18$.

Answer: 018



Grade 2-4 (Primary 2-4)

Figure 1 Figure 2 Figure 3 Figure 4

Answer: 085

Sample Questions

Grade 5-6 (Primary 5-6)

For more sample questions, visit <https://form.simcc.org/lms-home/>

Please register an account at our Member Development Portal (<https://form.simcc.org/>) to access the questions.

Grade 5/Primary 5: In a family, there are four children. Adam's age is the sum of Beth's and Carol's ages. Four years ago, David's age was the sum of Beth's age then and Carol's age then. Eight years ago, Adam's age was twice David's age then. Who is the oldest child in this family ?

(Write 001 if Adam, 002 if Beth, 003 if Carol and 004 if David)

Solution:

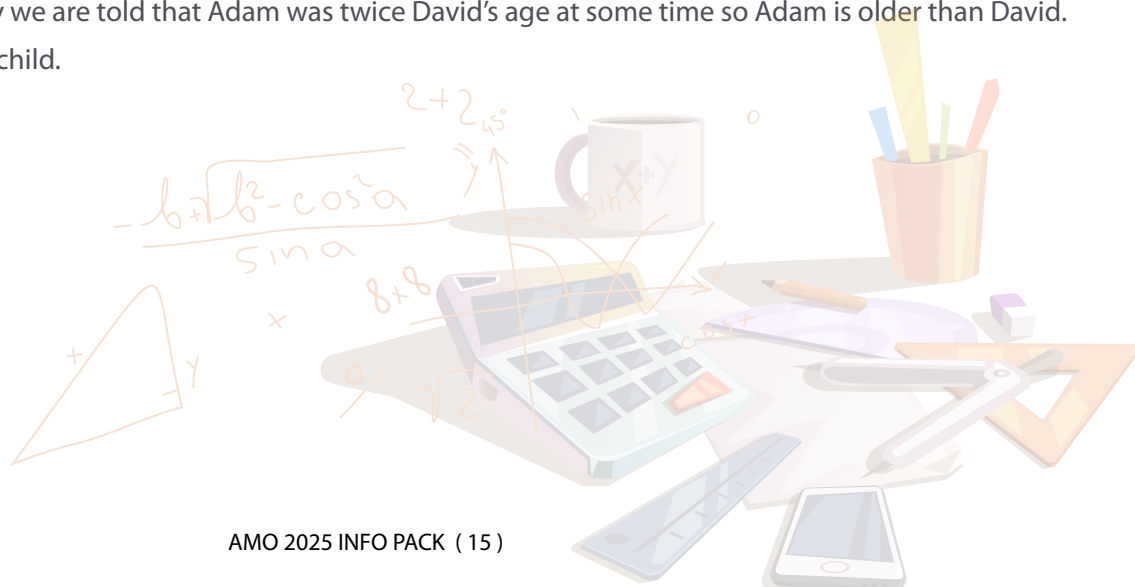
METHOD 1 Strategy: Use logical reasoning. Since Adam's age is the sum of Beth's and Carol's ages, he must be older than either of them. Since 8 years ago Adam was twice David's age, Adam must be older than David. Therefore, Adam is the oldest child.

METHOD 2 Strategy: Make a table and use an algebraic approach.

Children	Adam	Beth	Carol	David
Age Now	$B + C$	B	C	D
4 years ago	$B + C - 4$	$B - 4$	$C - 4$	$D - 4$
8 years ago	$B + C - 8$	$B - 8$	$C - 8$	$D - 8$

Set up 2 equations: $D - 4 = (B - 4) + (C - 4)$ and $B + C - 8 = 2(D - 8)$. Simplify these equations to: $D = B + C - 4$ and $B + C = 2D - 8$. Substitute the second equation into the first to get: $D = (2D - 8) - 4$ so $D = 12$. Since $D = (B + C) - 4$, $B + C = 16$. Since both Beth and Carol existed 4 years ago, they must each be at least 4 years old at this time so neither one is older than 12. Finally we are told that Adam was twice David's age at some time so Adam is older than David. Hence, Adam is the oldest child.

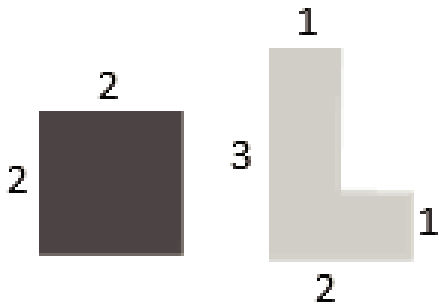
Answer: 001



Sample Questions

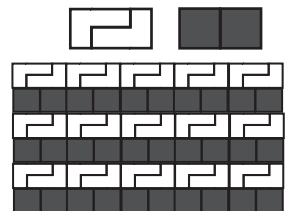
Grade 5-6 (Primary 5-6)

Grade 6/Primary 6: Ananya wants to tile a floor that is 24 m by 40 m. There are two types of tiles: a square that is 2 m on a side and an L-shape as shown. The L-shaped tile can be turned over or rotated if needed. What is the least number of tiles Ananya needs to tile the floor completely ?

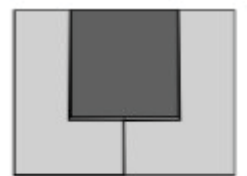


Solution: Let us show that the least number of tiles Ananya needs to tile 12 m by 20 m floor completely is 60. Then the least number needed to tile 24 m by 40 m floor is $4 \times 60 = 240$.

METHOD 1 Strategy: Use subdivisions of the area. First note that both the 2×2 and L-shape fill 4 units of area. Because the floor is $20 \times 12 = 240 \text{ m}^2$, the best we can hope for is $240 \div 4 = 60$ tiles. Now, let's put a few tiles together at a time. Two L-shapes can fill a 2×4 rectangle, if one L is flipped and rotated. Two 2×2 squares can also join to become a 2×4 rectangle. Either way, the 12 rows of the floor's grid can be filled by all squares, all L-shapes, or a combination of both. That would yield 6 row blocks by 5 column blocks, each with 2 matching tiles. That is, $6 \times 5 \times 2 = 60$ tiles, the optimal solution. One possible arrangement is shown.



METHOD 2 Strategy: Use objects. Draw a grid of 20×12 . Create L-shaped and square tiles as described in the problem (perhaps by tearing paper). The area of a square tile is 4, and the area of an L-shaped tile is also 4. Fifteen blocks comprised of four 2×2 tiles would fit on the grid ($15 \times 4 = 60$). Thirty blocks comprised of two L-shaped tiles (one flipped and rotated) would also fit on the grid ($30 \times 2 = 60$). Twenty blocks comprised of two L-shaped tiles and one square tile would also fit on the grid ($20 \times 3 = 60$). Because both 12 and 20 are divisible by 4; 4×4 , 2×4 , and 3×4 rectangles can cover the grid. In any configuration, the least number of tiles that would cover the floor would be 60.



Answer: 240

Sample Questions

Grade 7 (Secondary 1)

For more sample questions, visit <https://form.simcc.org/lms-home/>

Please register an account at our Member Development Portal (<https://form.simcc.org/>) to access the questions.

1) Find the sum of all the whole numbers between 41 and 50 inclusive, which are multiples of either 2 or 3 or 5.

Solution:

METHOD 1 Strategy: Make lists and eliminate duplicates.

Multiples of 2: 42, 44, 46, 48, 50

Multiples of 3: 42, 45, 48,

Multiples of 5: 45, 50.

Adding: $42 + 44 + 45 + 46 + 48 + 50 = 275$.

METHOD 2 Strategy: Add all the integers from 41 to 50 and subtract the ones that do not satisfy the conditions.

The sum of the numbers from 41 to 50 is $(10/2)(41 + 50) = 5(91) = 455$. Now subtract $455 - (41 + 43 + 47 + 49) = 455 - 180 = 275$.

Answer: 275

2) The sum of two non-consecutive page numbers is 70, and their difference is 36. Find their product.

Solution:

Let larger page number be x and the other page number be y .

Since the sum of these 2 pages are 70: $x + y = 70$.

Given that their difference is 36: $x - y = 36$

Adding the first equation to the next:

$$x + y + x - y = 70 + 36$$

$$2x = 106$$

$$x = 53$$

$$y = 70 - 53 = 17$$

Then their product are: $xy = 53 \times 17 = 901$

Answer: 901

Sample Questions

Grade 8 (Secondary 2)

For more sample questions, visit <https://form.simcc.org/lms-home/>

Please register an account at our Member Development Portal (<https://form.simcc.org/>) to access the questions.

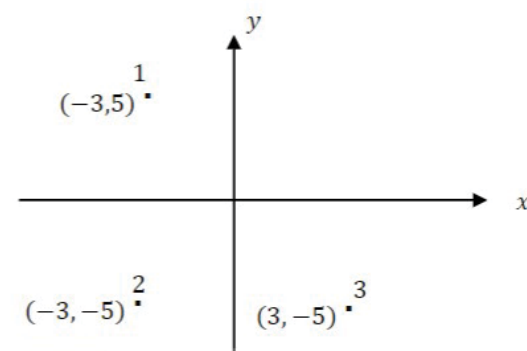
1) The point $(-3, 5)$ is reflected over the x -axis. Its image is then reflected over the y -axis to the point (a, b) . Find the value of $a - b$.

Solution:

Point 1 represents the initial point. Point 2 represents the reflection of point 1 in the x -axis. Point 3 represents the reflection of point 2 in the y -axis.

$$a - b = 3 - (-5) = 8$$

Answer: 008



2) Beginning with 789, each subsequent term in a sequence is formed by summing the cubes of the digits of the previous term. Find the 2018th term.

Solution:

The next term after 789 is $7^3 + 8^3 + 9^3 = 1584$

The following term after 1584 is $1^3 + 5^3 + 8^3 + 4^3 = 702$

Repeating this method, the sequence is as follows:

789, 1584, 702, 351, 153, 153, ...

Thus the sequence repeats the term 153 after the 4th term. Hence at the 2018th term, the number will still be 153.

Answer: 153

Sample Questions

Grade 9/10 (Secondary 3/4)

For more sample questions, visit <https://form.simcc.org/lms-home/>

Please register an account at our Member Development Portal (<https://form.simcc.org/>) to access the questions.

1) The triangle ABC is a right-angled triangle, where B is the right angle. BD is perpendicular to hypotenuse AC. Given AD = 8 cm and DC = 18 cm, what is the length of BD in cm ?

Solution:

Strategy: Pythagorean Theorem

Let the length BD be x

$$AB^2 = x^2 + 8^2, BC^2 = x^2 + 18^2$$

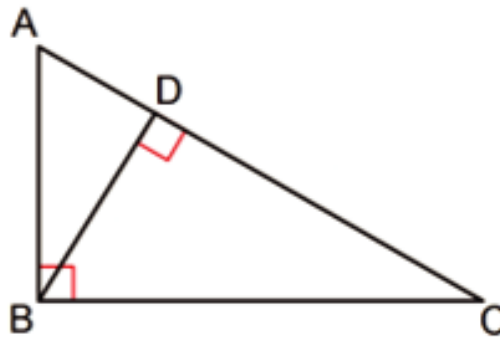
$$AC^2 = AB^2 + BC^2$$

$$26^2 = x^2 + 8^2 + x^2 + 18^2$$

$$2x^2 = 288$$

$$x = 12.$$

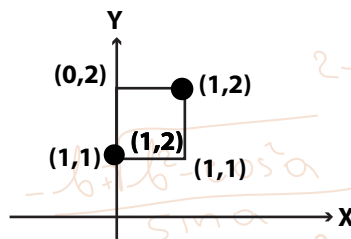
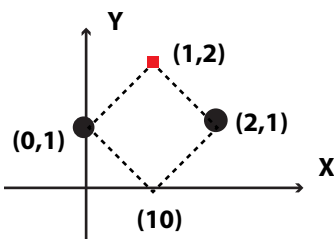
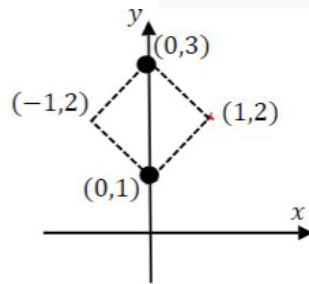
Answer: 012



2) The points (0, 1) and (1, 2) are the coordinates of the adjacent corners of a square. Find the sum of the y-coordinates of the points diagonally opposite to (0, 1) in a square.

Solution:

From the graph below, by adding the point (-1,2) we can form a square, with its vertices: (-1,2), (0,1), (1,2) and (0,3). Similarly, we can have another square with vertices: (1,0), (0,1), (1,2) and (2,1). Lastly, we can have another square with vertices: (0,2), (0,1), (1,2) and (1,1).



Therefore, the sum of y-coordinates diagonally opposite = 3 + 2 + 1 = 6.

Answer: 006

Sample Questions

Grade 11/12 (JC 1/2)

For more sample questions, visit <https://form.simcc.org/lms-home/>

Please register an account at our Member Development Portal (<https://form.simcc.org/>) to access the questions.

1) If θ is an acute angle and $\log_{\cos\theta}(\sin\theta) = \frac{1}{2}$, what is the value of $\cos\theta$?

- A. $\frac{1}{\sqrt{3}}$
- B. $\frac{2}{\sqrt{3}}$
- C. $\frac{\sqrt{5}+1}{2}$
- D. $\frac{\sqrt{5}-1}{2}$

Solution:

From $\log_{\cos\theta}(\sin\theta) = \frac{1}{2}$, we have $\sqrt{\cos\theta} = \sin\theta$ or $\cos\theta = (\sin\theta)^2 = 1 - (\cos\theta)^2$. Solving the equation for $\cos\theta$ in the context, we have a positive value for $\cos\theta = \frac{\sqrt{5}-1}{2}$.

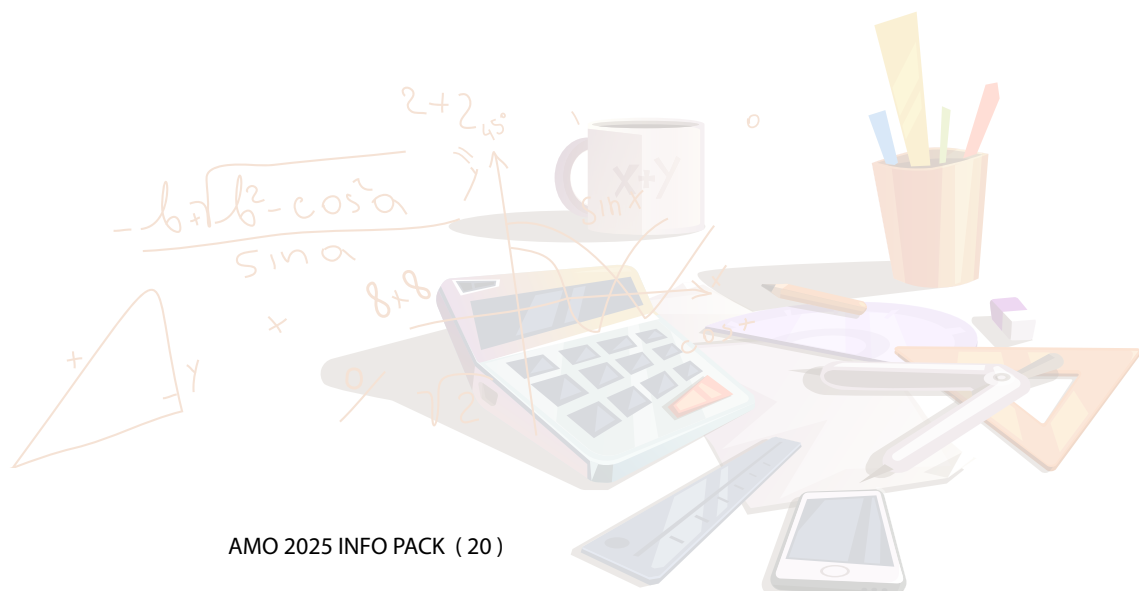
2) In the 2D Cartesian system, a point is $A = (2,1)$ is transformed by a matrix to point B as shown, where

$$B = \begin{bmatrix} \cos(\alpha) & -\sin(\alpha) \\ \sin(\alpha) & \cos(\alpha) \end{bmatrix} \begin{bmatrix} 2 \\ 1 \end{bmatrix}$$

- A. $\sqrt{10-5\sqrt{2}}$
- B. $\sqrt{12-2\sqrt{3}}$
- C. $\sqrt{10-3\sqrt{2}}$
- D. $\sqrt{12}$

Solution:

After the transformation (i.e., rotation), $B = (\frac{\sqrt{2}}{2}, \frac{3\sqrt{2}}{2})$. The distance between A and B can be found using the Pythagorean Theorem or the distance formula: $d(A, B) = \sqrt{10-5\sqrt{2}}$



Registration Information

Please approach your country partner for registration and payment details.

Competition Date

Registration Fee

IMPORTANT NOTE:

Each student may participate in the competition only once within the same calendar year. Registration as both a school candidate and a private candidate simultaneously is prohibited. If we identify such cases, the student will be disqualified from both competitions.

Register for AMO Competition & Get Free AMO LMS Access!

All registered participants of the AMO competition will receive complimentary access to the AMO LMS, which includes:

- Past years' AMO questions
- Complete solutions for practice and learning

Simply register for AMO to enjoy this free benefit now!

Note:

Students will receive access to the AMO LMS starting from 15th September 2025, access will be granted twice a week—every Tuesday and Friday.

HOW TO REGISTER:

Kindly check with your country partner for registration and competition details. For more information about your country partner, please refer to our website below

<https://simcc.org/country-partners/>

REFUND POLICY

The contest fees paid by students to the competition are non-refundable. To host the competition, our organization invests a significant amount of time and resources, not to mention the various charges incurred to process the payments and registration.

As a social enterprise, SIMCC operates with a very lean team and limited resources to keep our operating costs low in order to make our competition affordable to all students. Hence, we will not be able to offer any refunds for competition fees to students who withdraw or cancel beyond our control.

If any student has been wrongly charged by SIMCC, or we cancel an event due to reasons under our control, we will happily refund the fees paid by the students.



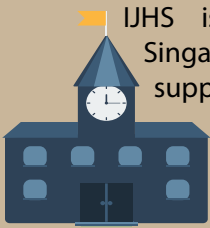


International Junior Honor Society

“Leaders Give, Givers Grow!”



IJHS is an honor society that focuses on developing leaders and enabling its members to achieve success in academic and life pursuits. IJHS provides its members with a variety of platforms and opportunities to unleash their full potential, as well as connect to their community.



IJHS is fully funded by Scholastic Trust Singapore (STS), a non-profit foundation, and supported by a prominent volunteer board of advisors to help guide bright young leaders.



About IJHS

- **Vision:** a strong community of compassionate leaders.
- **Values:** humility, empathy, adaptability, resolute, truthfulness.

Goals

- Unlock the potential, talents, passions, and interests of aspiring Fellows
- Empower young leaders to give back to their local and global communities
- Pave the way for members to gain entry into top schools and qualify for scholarships
- Provide top institutions' admission and scholarship coaching to high achievers
- Make the world a better place.

How to earn IJHS SPs?

Students earn IJHS Scholarship points (SPs) by winning awards in SIMCC competitions. There are 3 levels of SIMCC competitions with different SPs.

Honorable mention winner will earn ISPs.

Entry for Induction to IJHS = 5 ISPs

Individual contests	National assesment	National Contest	Global Finals Online	Global Finals	
Perfect Score	1.5	3	3.5	4	
Gold Award	0.75	2	2.5	3	
Silver Award	0.5	1	1.5	2	
Bronze Award	0.25	0.5	0.75	1	
Honorable mention	0.15	0.25	0.35	0.5	
Team contests	MMT	VIJSO	IJCO	IJIO	SIMOC
Gold Award		2			1
Silver Award		1			0.5
Bronze Award		0.5			0.25

IJHS Membership Level

04 Honorary Lifetime
Special membership award for those who contribute to the society

03 Lifetime
3rd Entry Lifetime membership, tracked by LT Year # with LT Year 10 being the highest honor.

02 Senior
2nd Entry
2 years membership

01 Junior
1st year Entry
1 year membership



Other Awards counted for IJHS Individual SPs:

STEAM International Tournament (SIT), PAExS, Gold, Silver, Bronze awards in SIMCC contests plus Overall Championships, and YALA.

YALA Scholarships

YALA
YOUNG ACHIEVERS
LEADERSHIP ACADEMY



1. Every member of IJHS (grades 3 and above) will automatically receive at least a 30% scholarship to join the YALA Camp every year.



2. There are 4 levels of scholarships based on IJHS Individual Scholarship Points (ISPs).
1. **Platinum Scholarship (100%)**
2. **Gold Scholarship (50%)**
3. **Silver Scholarship (30%)**
Open to all IJHS members to apply.
4. YALA open to non IJHS at US\$1200 or S\$1,620



Gained $\geq$ 4 IJHS SPs



Member of IJHS

Gained more IJHS SPs

Better and more scholarships



Young Achievers Leadership Academy (YALA) Camp

YALA is a 5-day live-in leadership and personal development workshop for top students from Grades 3 to Grade 12. YALA is specially designed to empower these scholars to reach their highest life goals, including enabling them to gain admission to top schools and universities. At the same time, YALA helps develop students' leadership skills and provides them with opportunities to contribute to society in meaningful ways.

YALA 2025 is conducted at Shenzhen, China.

Social Equity/Needy Students – Free entry to SIMCC Competitions



Our top USG experts will support SOAR students to determine the highest yield valued extra-curricular activities and how to maximize their choices to best demonstrate their skills to create their brand and express their unique personality for their university applications

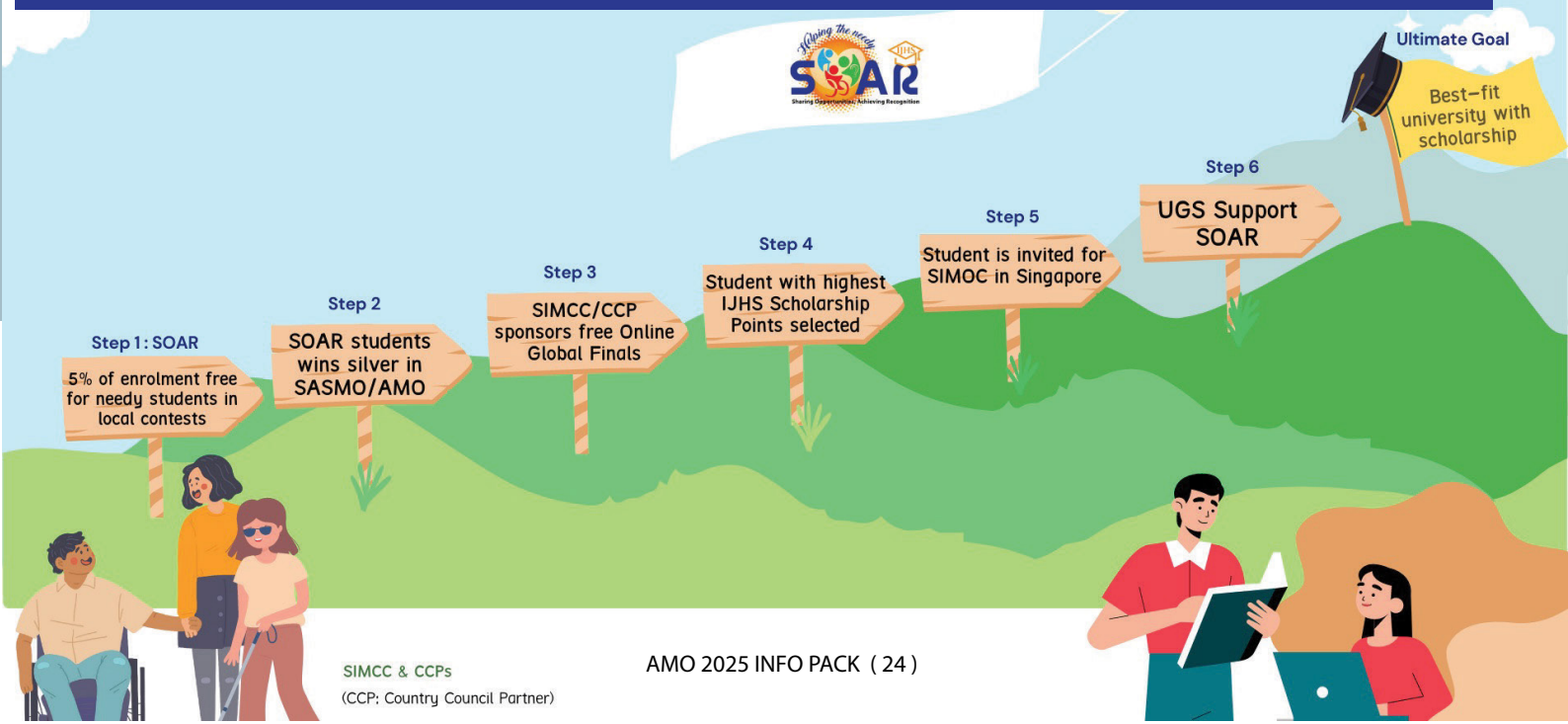


Our goal is to help these students SOAR over an increasingly competitive application crowd — making sure they strengthen their portfolio to gain admission to top universities with scholarships.



Projects under IJHS
CSPs (Community Service Projects) are innovative projects focused on serving the community. They range from technology to social work and can be proposed by anyone with a vision to achieve. The CSP committee is responsible for supporting and managing your CSPs. We provide you with guidance and manpower to make your ideas into a reality. Check out some of our completed CSPs down below!

Support for poor and disadvantaged Students



Introduction of SLSP

SIMCC STS Leadership Scholarship Pathway (SLSP)
Elevating students from average learners to high achievers
Through international academic competitions, unlocking opportunities for university admission and scholarships.

SLSP's Mission: Empowering Educational Pathways

At SIMCC and through the SLSP initiative, our mission is to enrich each student's academic journey — starting with placement in strong primary and secondary schools that nurture foundational excellence.

We continue this journey by guiding students as they build compelling university enrollment portfolios through meaningful experiences in:

- 🌐 STEM & STEAM Olympiads
- 🔬 Research and Innovation Projects
- 🌱 Leadership and Community Engagement via YALA
- 🌍 Global Exposure and Academic Excellence through IJHS: These curated opportunities help students grow not only as scholars, but as socially conscious leaders — creating well-rounded profiles that shine in competitive admissions processes.
- 🎯 Our ultimate goal is to match each student with a university that aligns with their strengths, aspirations, and potential for impact

From Average Students to Outstanding Scholars



SIMOC, IJHS, UGS, and YALA create Great Opportunities



SIMCC and Scholastic Trust Singapore have selected the top 10 winners each from Primary 4 to Secondary 2 (grades 4 to 8) from SIMOC 2022 of Global Math Olympiad Scholars (GMOS).



60 GMOS Selected from SIMOC Annually

Each year, Top 10 Math Olympiad Winners from SIMOC (limited to 2 per country per grade for grades 4-9) receive a one-year IMO Training scholarship, preparing them to be selected for their country's IMO Team.

They get the next SIMOC training - Free.



Launch of GMOS Academy

With at least 5 GMOS Scholars who have been selected to their country's IMO team, SIMCC is recruiting more IMO medallists as coaches to the GMOS Academy. New opportunities include:

1. SLSP GMOS Gold (50%) Scholarships.
2. All IJHS members get 30% SLSP GMOS Scholarships.

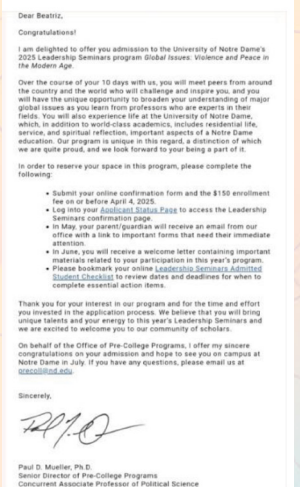
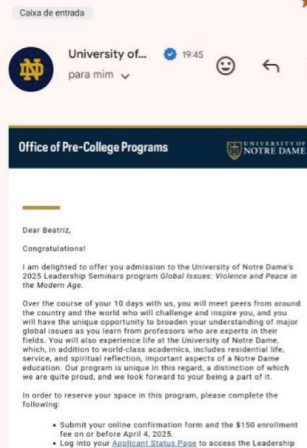


Eligibility for Leadership Seminars

Program Date: July 19 - 30, 2025



Leadership Seminars Decision Letter



BEATRIZ MARIA SOARES BARBOSA DA SILVA, Grade 12, from COLEGIO MAGNUM AGOSTINIANO, Brazil, International Junior Honor Society (IJHS) Global Student Leadership Council (GSLC), Vice President has been admitted into University of Notre Dame's Leadership Seminar in July 2025

SLSP Scholarship Passport

What's Next: Release of IJHS SLSP Scholarship Passport

- ✓ IJHS members can use scholarship points to apply for SLSP scholarships
- ✓ Scholarships for SIMCC contests, training, camps, YALA, university scholarships, SIMOC, STEAM AHEAD, UGS, Pre-College Scholarship Prep, etc
- ✓ Scholarships are earned by country enrolment in SIMCC contests and open to IJHS members from that country, higher Country enrolment = more scholarships for Country IJHS members

YALA 2025 SHENZHEN – December 19 to 23, 2025

Each CCP earns 1 Platinum and 1 Gold YALA scholarships for every 2500 contestants enrolled in SIMCC contests* each academic year
(* excludes SMC due to low fees)

YALA 2025, Shenzhen,
China, Dec 19 to 23, 2025





SIU
Southern
Illinois
University
CARBONDALE



<https://amo.simcc.sg>