XXXIX Asian Pacific Mathematics Olympiad

PROCEDURES AND REGULATIONS FOR THE ASIAN PACIFIC MATHEMATICS OLYMPIAD, 2027

1. GENERAL

1.1

The 2027 Asian Pacific Mathematics Olympiad (APMO) is to be held in the afternoon of Monday March 8 for participating countries in Oceania and in the Americas, and in the morning of Tuesday March 9 for participating countries on Western Pacific and in Asia.

1.2

The contest questions are to be collected from the contestants at the end of the APMO and are to be kept confidential until the Senior Coordinating Country posts them on the APMO website. Additionally, each exam paper must contain a written legend, warning the students not to discuss the problems over the internet until that date.

1.3

Each participating country is responsible for the costs and organization of the APMO within their country.

1.4

The aims of the APMO include:

a) the discovering, encouraging and challenging of mathematically gifted school students in all Pacific-Rim countries

b) the fostering of friendly international relations and cooperation between students and teachers in the Pacific-Rim Region

c) the creating of an opportunity for the exchange of information on school syllabi and practice throughout the Pacific Region

d) the encouragement and support of mathematical involvement with Olympiad type activities, not only in the APMO participating countries, but also in other Pacific-Rim countries

1.5

a) The APMO Countries are grouped as follows:

i) The APMO Senior Coordinating Country,

ii) The APMO Assistant Coordinating Country,

iii) The APMO Moderating Country,

iv) The APMO Participating Countries (countries of i),ii),iii) above inclusive),

v) The APMO Observer Countries.

b) At the Annual General Meeting, the APMO Senior Coordinating Country and the APMO Chair are elected for an initial period of three years. Thereafter the Annual General Meeting may confirm their status on a year-by-year basis. It is the responsibility of the APMO Senior Coordinating Country to nominate the APMO Chair.

c) At the Annual General Meeting, the APMO Assistant Coordinating Country is elected for an initial period of two years. Thereafter the Annual General Meeting may confirm its status on a year-by-year basis.

d) At the Annual General Meeting, the APMO Moderating Country is elected for an initial period of one year. Thereafter the Annual General Meeting may confirm its status on a year-by-year basis.

e) The Executive Committee of the APMO consists of: the APMO Chair, the APMO Problems Chair, the Country Representative of the APMO Assistant Coordinating Country, the Retiring APMO Chair, the APMO Secretary and the APMO Treasurer.

1.6

The Annual General Meeting of the APMO Committee, with the agreement of the organizers of the IMO host country, is to be held during the annual IMO. Communication details of the APMO membership are to be initially identified at the above meeting.

1.7

The APMO contest consists of one four-hour paper consisting of five questions of varying difficulty and each having a maximum score of 7 points.

1.8

Countries' representatives should be sensitive to the need for rapid reliable communications between themselves and the Senior Coordinating Country. Whenever possible, immediate communications should be made by e-mail and/or FAX to be followed by airmail letters confirming the earlier contacts.

2. PARTICIPATION

2.1

All countries on the Pacific Rim, including countries in Asia and in the Americas, are eligible to participate in the annual APMO. However, in their request to be a member, they must have the support of an appropriate educational/mathematical body in their country.

2.2

Contestants must have been born less than twenty years before 1 July in the year of the contest. Contestants must have been normally enrolled in fulltime primary or secondary education on or after 1 December in the year prior to the contest, or, in the case of home-schooled students, must not have received a high-school diploma (or equivalent), and must be working toward such a credential on 1 December.

2.3

While a particular country may have, unofficially, any number of students sitting the APMO in their country, the details and results of a maximum of ten students coded in ranked order on the Summary of Results Form, plus copies of the 1st, 3rd and 7th ranking students' solution papers are to be sent to the Senior Coordinating Country for that year. Contestants having the same score must be ranked by their country's APMO Organising Committee. Equal ranking is not permitted. (For example, suggestions for

breaking tie scores could include the ranking of the contestants' scores on the most difficult question and/or assessing the quality of solutions and so on.)

2.4

All APMO contestants will receive a Certificate of Award, Honourable Mention or Representation. The constraints for the issuing of Award certificates in general for a particular country are as follows:

a) To determine the overall numbers and levels of gold, silver and bronze award certificates, the following guidelines are to be used:

i) Maximum total number of award certificates $\lfloor \frac{n+1}{2} \rfloor$,

where n = total number of APMO contestants (when ties occur, increase number);

ii) Scores for gold awards $\geq m + \sigma$**; scores for silver** $\geq m + \frac{\sigma}{3}$**; and scores for bronze awards** $\geq m - \frac{\sigma}{3}$**,**

where m = mean APMO score, and σ = standard deviation of all the APMO scores.

b) For a particular country the number of

i) **Gold awards ≤ 1**,

ii) **Gold + Silver awards ≤ 3**, and

iii) Gold + Silver + Bronze awards ≤ 7.

2.5

A certificate of Honourable Mention will be awarded to any contestant who has not received an Award certificate but who has performed creditably according to some criteria (variable from year to year and dependent upon the actual spread of scores) determined each year by the Senior Coordinating Country after consultation with the Assistant Coordinating Country; for example, a contestant who has obtained a perfect score of 7 for at least one question or has obtained scores of 5 or 6 for at least two questions.

2.6

The question proposals should, if possible, cover fields of pre-university mathematics and, if possible, be of varying degrees of difficulty. The proposals should be written in English.

3. RESPONSIBILITIES

3.1

The Chair of the APMO Committee is responsible for:

a) organizing the agenda and other necessary matters at the Annual Meeting of the APMO Committee and

b) ensuring that the Senior and Assistant Coordinating Countries have been identified for the following two years.

3.2

The Senior Coordinating Country, with the cooperation of the Assistant Coordinating Country, is responsible for:

a) proposing additional (up to four) questions, solutions and marking schemes for the APMO, if necessary,

b) setting of the questions, preparing solutions and marking schemes for the APMO,

c) sending to the Assistant Coordinating Country the proposed APMO contest paper, two reserve questions, solutions and marking schemes for moderation by January 14 of each year,

d) sending to the Moderating Country the proposed APMO contest paper by January 30 of each year,

e) sending an English version of the APMO contest questions, solutions, marking schemes, Results Forms and Acknowledgement of Receipt Forms to the appropriate contact person (representative or committee member) in each of the participating countries by February 21 the following year,

f) the coordination and ranking of the results (as per clauses 2.4 and 2.5 above) to be sent to the participating countries as soon as possible in June of each year,

g) sending a sufficient number of Award, Honourable Mention and Representation certificates to each of the participating countries,

h) preparing a summary report to be sent to the Chair by June 30 of each year, and

i) keeping the APMO Chair informed of APMO's progress at appropriate times during the year.

3.3

The Assistant Coordinating APMO Country is responsible, when required, for direct and general support of the Senior Coordinating Country in helping set and moderate the APMO Contest paper and other problems if they arise. In particular:

a) it should propose additional (up to three) questions, solutions and marking schemes for the APMO, if necessary, which are to be sent to the Senior Coordinating Country by January 21 of each year, and

b) it should send reactions to APMO draft papers to the Senior Coordinating Country by February 7 of each year.

3.4

The Moderating APMO Country is responsible for final moderation of the APMO paper and marking scheme. This moderation concerns the identification of possible previously known problems and general comments. The moderation is to be sent to the Senior Coordinating Country by February 14.

3.5

All the Participating APMO countries are responsible for:

a) indicating to the Senior Coordinating Country that they wish to be placed on the APMO mailing list and, at the same time, identifying their country's contact person, and address details by August 1 of each year. Countries must also submit a completed Participation Form (available on the APMO website) by November 30 if they did not do so during the General Annual Meeting.

Note: It is important that the contact person or nominee be available at the designated address for the period from July to April of the following year.

b) organizing the APMO for their countries each year during the afternoon of the second Monday of March (March 8 in 2027) for countries in Oceania and in the Americas, and in the morning of the second Tuesday of March (March 9 in 2027) for countries on the Western Pacific Rim and in Asia (as defined in clause 1.1),

c) proposing at least two questions (varying degrees of difficulty and topics) with solutions and suggested marking schemes if possible

i) to be given to the APMO Chair (or his/her representative) at the Annual APMO General Meeting if their country is represented at the annual IMO; or

ii) to be sent to the APMO Chair by December 1 if their country is not represented at the annual IMO.

iii) at the same time to identify the names and institutions of the proposers of the questions, as well as the source of the questions; and

iv) to indicate whether the proposed questions which are not selected for the APMO, are available to be published in the final APMO report or are required to be returned in confidence to the proposers, or are to be placed in a question bank for future APMO's;

d) informing the APMO Senior Coordinating Country immediately of having received the Contest papers and of the contest schedule for their country,

e) marking their students' APMO solutions (with an integer score) and completing the APMO Results Summary Form; and

f) sending by e-mail the completed APMO Results Summary Form **and** copies of the papers of the 1st, 3rd and 7th ranking students in their country by May 9 each year.

Note: The coordination of results will proceed generally no later than May 20 of each year. If a country has not sent in its results, consistent with the regulations, it will automatically be excluded from that year's general result processing.

4. YEARLY TIMETABLE

	Participating Countries	Moderating Country	Assistant Coordinating Country	Senior Coordinating Country	Chair
2025					
August 1	3.5 a)				
AGM	3.5 a) and 3.5 c)				3.1
December 1	3.5 c)		3.3 a)		
October 14				3.2 c)	
November 14			3.3 b)		
November 30	3.5 a)			3.2 d)	
2026					
February 14		3.4			
February 21	3.5 d)			3.2 e)	
March 10 – 11	3.5 b) Reminder: 1.2				
May 9	3.5 f)				
June 1				3.2 f) and 3.2 g)	
June 30				3.2 h)	
Early July					3.1

AGM – Annual General Meeting