

**Mediterranean Youth Mathematical Championship (MYMC)  
Rome, 22-25 July 2020**

**REGULATIONS**

**GENERAL**

1. The aim of the MYMC is to encourage Mediterranean youth, both male and female, to develop an interest in Mathematics, a discipline which has been of great importance for the growth of the cultural community of the Mediterranean, with its many nations and religions.
2. Each participating country is represented by a team of four students and by one chaperon.
3. The four students are two boys and two girls, currently in their final three years of high school, at least fifteen years old and at most nineteen years old. **None of the students can be a participant in the 2020 International Mathematical Olympiad. Team members violating this requirement will not be allowed to compete in the MYMC.**
4. The chaperon of the team is responsible for the conduct of the students during their whole stay in Rome. It is understood that the chaperon is acting in loco parentis for them.
5. The MYMC takes place under the supervision of the Jury nominated by the Operations Committee of the MYMC. The decisions of the Jury are final.

**COMPETITION RULES FOR JULY 23, 2020**

6. In all rounds, the problems are either multiple-choice or with numerical answers. The problems are written in English.
7. In all rounds, the four students of a team work together towards the solution of the problems they are given.
8. The only instruments permitted are writing and drawing instruments, such as rulers and compasses. In particular, books, papers, tables, calculators, protractors, computers and communication devices are not allowed into the examination room.

**Morning round**

9. A common list of 15 problems, to be resolved in 80 minutes, is given to each team.
10. 2 points are awarded for each correct answer, 0 points for each incorrect answer, and 0.5 points for each answer not given.
11. At the end of the morning the Jury will draw up a provisional ranking of the teams, based on the total points obtained. In the case of a tie, the classification order is decided by a draw.

**Early afternoon round**

**Case of an EVEN number of teams**

**First stage**

12. Matches are held between two teams which are paired according to their provisional ranking after the morning round: the highest ranked against the second-highest, the third-highest against the fourth-highest, etc.
13. A match between teams A and B is conducted in the following way: both A and B are given three problems each, from which they choose two, passing the remaining problem to the opposing team within 4 minutes; in the following 20 minutes, A and B must solve the three problems they are each left with.
14. At the end of the 20 minutes, each team wins 1 point for each problem correctly solved. If a team has correctly solved more problems than its opposing team, the former team is given 1 extra point. The points won are added to those obtained in the morning round.

**Second stage**

15. Matches are held between pairs of teams; the pairings are decided by a draw in such a way to avoid repeating pairings that have already taken place in the first stage.
16. Once again, a match between teams A and B is conducted in the following way: both A and B are given three problems each, from which they choose two, passing the remaining problem to the opposing team within 4 minutes; in the following 20 minutes, A and B must solve the three problems they are each left with.
17. At the end of the 20 minutes, each team wins 1 point for each problem correctly solved. If a team has correctly solved more problems than its opposing team, the former team is given 1 extra point. The points won are added to those obtained in the morning round and the previous stage.

### **Case of an UNEVEN number of teams**

#### **First stage**

18. A team, say team U, is chosen by a draw. This team does not participate in this stage.
19. For all other teams, matches are held between two teams which are paired according to their provisional ranking after the morning round: the highest ranked different from U against the second-highest different from U, the third-highest different from U against the fourth-highest different from U, etc.
20. A match between teams A and B is conducted in the following way: both A and B are given three problems each, from which they choose two, passing the remaining problem to the opposing team within 4 minutes; in the following 20 minutes, A and B must solve the three problems they are each left with.
21. At the end of the 20 minutes, each team wins 1 point for each problem correctly solved. If a team has correctly solved more problems than its opposing team, the former team is given 1 extra point. The points won are added to those obtained in the morning round.

#### **Second stage**

22. A team who took part in the previous stage, say team V, is chosen by a draw.
23. A match is held between team U and team V, following analogous rules to the first stage. The points won by U are added to those obtained in the morning round. The points won by V are added to those obtained in the morning round and in the first stage.

#### **Third stage**

24. Team V does not participate in this stage.
25. For all other teams, matches are held between pairs of teams; the pairings are decided by a draw in such a way to avoid repeating pairings that have already taken place in the first stage.
26. Once again, a match between teams A and B is conducted in the following way: both A and B are given three problems each, from which they choose two, passing the remaining problem to the opposing team within 4 minutes; in the following 20 minutes, A and B must solve the three problems they are each left with.
27. At the end of the 20 minutes, each team wins 1 point for each problem correctly solved. If a team has correctly solved more problems than its opposing team, the former team is given 1 extra point. The points won are added to those obtained in the morning round and in the afternoon.

#### **Late afternoon round**

28. A common problem is given to each team, to be solved in at most 10 minutes. The team which first provides the correct answer is awarded 3.5 points; all the other teams providing a correct answer are awarded 1 point. If a team provides an incorrect answer, it is awarded 0 points. If a team does not provide an answer, it is awarded 0.5 points. The points awarded are added to those already accumulated. Furthermore, a record is kept of the order in which correct answers were provided.

### **FINAL RANKING OF THE MYMC**

29. The final ranking of the MYMC is decided by the Jury based on the final score obtained by the various teams, at the conclusion of the competitions described above. In the case of a tie for first place (or second place) in the final ranking, precedence is given to the team coming first in the order mentioned in 28. In case of a further tie, the placing is decided by a draw.
30. In the awards ceremony of July 24, 2020:
  - the team in first place will receive the gold medal
  - the team in second place will receive the silver medal
  - all other teams will receive a bronze medal.