

MathMasters Uni Cup

7th February 2026

Organised by Youth Tech Fest Cyprus

Rule Book

1.DURATION - 4 Hours

2. PARTICIPANTS

Students completing their first, second, third or fourth year of university education with a maximum age of participants being 23 years of age at the time of the competition, although some exceptions can be made.

3.FORMAT & TOPICS

Algebra — polynomial equations, inequalities, functional identities, rings/fields or elementary group/linear-algebra style problems (matrix equations, eigenvalue tricks).

Analysis (Real & Complex) - limits, sequences/series, classical real-analysis proofs, calculus-style inequalities, sometimes basic complex numbers or complex-analysis style arguments.

Geometry — Euclidean geometry (synthetic), triangle/angle chasing, circle/power of a point, sometimes analytic/vector geometry and geometry inequalities.

Combinatorics — counting arguments, bijections, pigeonhole, combinatorial identities, elementary graph theory, recurrences.

Extras / crossover topics — number theory problems, linear-algebra-flavored problems, functional equations and inequality techniques as part of the four main areas above.

4. RULES

- Solve all problems, fully justifying your answers
- Write in blue or black ink (Geometrical shapes may be done in pencil)
- The use of correction fluid is not permitted
- The use of a calculator is not permitted
- Each problem is worth 10 points
- Snacks and water are allowed during the examination
- Bathroom breaks are only allowed during emergencies

5.MARKING

Each question is 10 marks, so the exam has a total of 40 marks. The way the questions are going to be graded is the following:

2 points for getting the answer right, the rest of the 8 points depend on how creative or how close the answer was to a possible correct approach.

We are more interested in creativity; hence we are not that interested in reaching the correct answer, but mostly the approach.

6.TOP PRIZE - Participation in SEEMOUS or IMC 2026

The best students will take part in one of the most prestigious Math Olympiads for University Students - SEEMOUS 2026 (3rd - 8th March, 2026, Paphos, Cyprus) or 33rd IMC 2026 (27th July - 3rd August, 2026, Blagoevgrad, Bulgaria). Participants must comply with the entry requirements.

CONTACT US:

Sean Alimov, Head of Project, +357 97 754 126 | <u>info@youthtechfest.com</u> Mohammad Aldebbeh, Cup Director | <u>mohameddubbah@gmail.com</u>