COMPETITION RULES

MATHÉMATIQUES sans FRONTIÈRES

Scotland (and rUK) Classes

Mathématiques sans Frontières is a competition for National 5 and Higher grade students (rUK classes (and others!) – see later). The test consists of collectively solving ten exercises (for Nat. 5) and thirteen (for Higher). It is not an individual competition but promotes teamworking.

Teams must consist of classes formed for the teaching of mathematics of the current year; they cannot be teams set up specifically for the competition.

The presence of a small number of pupils from higher-level classes is allowed during the final test, if it does not lead to a significant increase in class size. Under no circumstances can it be an entire class of correspondents. The teacher supervising the test must mention on the submission sheet the presence of additional pupils, specifying their number. These higher-level pupils who participated in the event will not receive a prize.

Mathématiques sans Frontières is a competition giving rise to a winner, with a prize available for Scottish classes (donated, with thanks, from the Scottish Mathematical Council): every precaution must be taken to avoid leaks and cheating.

This year, the final test should take place on **Thursday 5th March, 2026**.

Organization of the final test:

- Each participating class gathers in an classroom (without access to computers).
- Students may be supervised by any teacher in the school, including their mathematics teacher. All classes in the same institution must work in the same time-slot.
- The students organize themselves in any way they wish: they can talk to each other, circulate in the room made available to them, work in groups, use any display boards, ... taking care not to interfere with neighbouring classes.
- Each class returns **one answer sheet per exercise**.
- The solution of the foreign language exercise must be written in one of the languages in which it is stated.
- No student can pick up anything outside the room once the test has begun.
- The total allocated time is 90 minutes for Juniors (Q1-10) and 90 minutes for Seniors (Q1-13).

Authorized Equipment:

- Calculators (*)
- Drawing instruments
- Dictionaries and atlases (dictionary and paper atlas; electronic form excluded)
- Bilingual dictionaries (paper dictionary; electronic form excluded)
- Small stationery equipment and draft sheets
- Class textbooks and student notebooks

(*) Calculators must be standalone. If they have a means of communicating, it must be disabled.

Unauthorized Material:

- Phones, tablets or any device able to communicate
- Translators
- Computers

The organizing teams reserve the right to disqualify any class that has not respected the rules of the competition.

rUK Classes (and others)

For those using the GSCE / A-level pathways:

- Junior section of the competition (Q1-10) is for Year 10 and/or Year 11 pupils
- Senior section (Q1-13) is for Year 12 pupils only.

Submissions

Submissions should be posted by Friday 13th March, alongside a **register of the team(s) including the Team Name and School Name**, to

Dr Alan J. Walker
Mathématiques sans Frontières Coordinator
c/o School of Computing, Engineering, and Physical Sciences
University of the West of Scotland
F227 – Paisley Campus
High Street
Paisley
Scotland
PA1 2BE

Please note that in 2024 a couple of entries did not make it in time. Please double check that appropriate postage has been paid and the address is clear. **You may wish to make scans of the pupils' work as a back-up.**

Contact

Any questions should be put to SMC.MsF@proton.me .

Instructions for the Discovery Test

Preamble

This exercise does not count towards the final ranking; its purpose is to prepare the class for the final competition on March 5, 2026.

For this practice to be effective, it is recommended that the mathematics teacher supervise the class for at least the first hour and assist the students in organizing their work. The teacher can help overcome any obstacles and enable them to reach a successful conclusion.

Exam procedure

Students organize themselves as they wish to work; they can talk amongst themselves, move around the room provided for them, work in groups, use the board, etc., taking care not to disturb other classes.

Teacher's Role

- The teacher will distribute the problem sets to the students (one per student).
- The teacher will inform Nat. 5 students that they do not need to complete exercises 11, 12, and 13, and Higher students that they must complete all questions.
- The teacher can help students to:
    - read the problem sets and instructions for each exercise carefully;
    - form groups;
    - choose methods and strategies;
    - compare opinions and critique solutions before finalizing them;
    - encourage maximum participation from each student and remind them that even partial solutions (if not a complete solution) will be considered.
- Once marked, the teacher will be able to review with the class in order to best prepare for the official exam.

No entry of results for the introductory test is required. However, if you wish, you can send a few lines about the test: your impressions and those of your students,

successes, failures, difficulties, suggestions, etc., to the following address: SMC.MsF@proton.me .

If you have any exercise ideas, you can send them to the subject design team, so you might see your exercise in a future edition!

Many classroom resources from the competition are accessible and usable directly from the main **Mathématiques sans Frontières** website:

http://maths-msf.site.ac-strasbourg.fr/

and you find previous papers via the SMC website:

https://scottishmathematicalcouncil.org/competitions/mathematiques-sans-frontieres/