



Introduction to the practice session

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About the contest

The contest in a nutshell

- Teams of 3 students.
- One computer per team.
- 11 problems to solve.
- Languages: C, C++, Java, Python.
- Goal: solve many problems quickly and correctly.

Ranking function

Teams are ranked, in lexicographic order, by:

1. their total number of solved problems;
2. a **tie-breaking time**: the sum over the solved problems of:
 - the time it took to solve the problem;
 - 20 minutes for every incorrect submission.

A typical problem

- Short description in English of a **problem to solve**.
- Description of the input and output **format**.
- **Example** of an input and its output (also provided for download).
- The program should read the input and write the output on the **standard streams** (`stdin` and `stdout`).

Evaluation

- Submission is done through a **Web interface**.
 - Also: **command-line** submission client.
- **Automatic** evaluation on secret test cases.
- Verdicts may be **manually overturned** by judges.
- Limited **execution time**: 1–15 seconds (as indicated).
- Limited **memory** (1 GB), source size (256 kB).
- **Stack** limits: no limit for C/C++, 8 MB for Java, default recursion limit for Python (can be changed in program).

Verdicts (stops at first failed test)

- | | |
|-------------------|-----------------|
| 1. TOO-LATE | 5. TIMELIMIT |
| 2. COMPILER-ERROR | 6. NO-OUTPUT |
| 3. OUTPUT-LIMIT | 7. WRONG-ANSWER |
| 4. RUN-ERROR | 8. CORRECT |

Caveats

- Only **one source file** can be submitted.
- The specified **input format** is guaranteed.
- Respect exactly the specified **output format**.
- Use an efficient **algorithm** to pass the time limit.

A note on languages

- Languages available:
 - C/C++ with gcc 7.2.0 (C 2011, C++ 2014, with GNU extensions)
 - Java 10 with OpenJDK 1.10
 - Python 2 with PyPy 2.4.0
 - Python 3 with CPython 3.4.2
- All problems have been solved with C++, with Java, and with Python 2.
- Some problems are more difficult to solve in some languages.
- Due to inherent performance differences, the time limit is multiplied by a factor of 1.5 for Java and by a factor of 3 for Python.

Language features

Some language features are **not allowed**:

- inline assembly code
- threads
- file I/O, networking
- file management
- device management
- interprocess communication
- forking and execution of external commands

Do not try these! Malicious uses of these features will lead to **disqualification**.

Behavior

- Talking is only allowed between members of the same team while seated at their desk.
- No talking away from your desk or across teams.
- Don't do anything that jeopardizes the contest:
Trying to access the Internet, distract others, etc.

Other rules

- No **electronic devices** permitted in the contest area!
Leave them with your coach or don't bring them.
 - Teams with electronic devices will be **disqualified!**
- Access to the **bathroom** one at a time
- **Stay** in the room until the end of the contest
- Again: **absolutely no talking** in the corridor!

Before contest begins

- Don't touch the computer before contest starts
 - No time is provided to set up your computer
- Don't open the envelope with the problems before contest starts
- Contest starts when the countdown goes to zero

Questions and problems

- Questions about the **problems** or **environment** (compiler versions, etc.)
 - Ask a **clarification request** on the judging system
- Problem with your **workstation**: crash, hardware failure, etc.
 - Ask a **volunteer**
- Requests for more draft paper, other practical issues
 - Ask a **volunteer**
- Technical support, help with your source code
 - Don't even ask. ;-)

Coaches

- Coaches may use **room B310** or **B312** (entrance floor).
- Coaches can **participate** on the public instance:
`https://domjudge.di.ens.fr/`
- Practice: coaches may **visit their teams** between 15:30 and 16:30

About the environment

Where is your working space?

- Computer labs are in building C.
- The **unique gateway** is right after the interbuilding bridge (one floor above this auditorium)
Don't try to follow a different path.
- Your **position** is written on your badge, e.g., C127-B9
 - C127 is the **room**
 - B9 is the **position** in the room (column B/row 9)
 - Room C045 is one floor below, after the gateway

Material

You are only allowed to bring:

- **Writing instruments** (pens, ...): they are not provided
- **Stickers** to customize your keyboard

Your **notebooks** are installed by us.

Process

- Install your desk today (stickers, etc.)
- After the practice contest:
 - **Throw away** or **take away** all problem statements, drafts, printouts.
 - **Leave** the notebooks, pens, stickers, mascots, etc.
- No additional material may be brought in on Sunday.

- Volunteers will have logged you in the **workstation**.
Don't close your session or exit the environment.
- You are automatically logged into the **judging system**.

There is **no Internet access**, except to the following:

- Automatic judging system.
- PDF **documentation** of the judging system.
- Offline **documentation** of the programming languages.
- Copy of **swerc.eu** (including regulations and environment details).

You can also use your **team reference document**.

About the judging system

Judging interface

[overview](#) [problems](#) [scoreboard](#)

logged in as [John Doe](#) x

RANK	TEAM	SCORE	A	B	C	D	E	F	G	H	I	J	K
3	 Example team  Utrecht University	9 1158	1/49	0	1/80	2/210	1/68	1/294	2/158	0	1/26	2/34	3/139

Submissions

No files selected.

time problem lang result

19:55	B	CPP	TOO-LATE
11:34	F	CPP	CORRECT
10:10	D	CPP	CORRECT
10:00	D	CPP	WRONG-ANSWER
09:18	G	CPP	CORRECT
08:59	K	CPP	CORRECT
08:50	K	CPP	WRONG-ANSWER
08:46	G	CPP	WRONG-ANSWER
08:30	E	CPP	CORRECT
08:24	K	CPP	WRONG-ANSWER
08:00	C	CPP	CORRECT
07:48	E	CPP	CORRECT
07:29	A	CPP	CORRECT
07:14	J	CPP	CORRECT
07:07	J	CPP	WRONG-ANSWER
07:06	I	CPP	CORRECT

Clarifications

time from to subject text

19:52 Jury All General The scoreboard is now frozen!
issue

19:52 Jury You problem Read the problem statement carefully!
A

Clarification Requests

No clarification requests.

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Scoreboard Southwestern Europe Regional Contest (SWERC) 2017

final standings

RANK	TEAM	SCORE	A	B	C	D	E	F	G	H	I	J	K	L
1	 ENS École Normale Supérieure de Paris	9 1124	1/10	1/238	1/96	1/278	2/56	1/11	2	3	4/234	2/14	3/47	
2	 ETH Zürich reThink togETHer ETH Zürich	9 1170	2/9	0	1/100	2/271	1/77	1/13	1/224	0	4/195	2/29	2/112	
3	 SNS Pisa Scuola Normale Superiore	7 485	1/8	1	2/100	0	1/45	1/11	0	2	2/186	1/15	1/99	
4	 UPC 1 Universitat Politècnica de Catalunya	7 562	1/21	2/246	3/126	0	1/56	1/4	1	6	1	1/12	1/37	
5	 IIUSIOn Università della Svizzera Italiana	7 619	1/16	1/260	1/50	0	1/82	1/9	1	0	0	1/21	3/141	
6	 Rubber Duck Forces Technion - Israel Institute of Tech	7 824	1/26	0	1/199	0	1/145	1/11	3/214	0	0	1/15	1/174	
7	 UPC 3 Universitat Politècnica de Catalunya	6 435	1/33	1	2/186	0	1/31	1/6	1	0	0	1/12	3/107	
8	 PDT Politecnico di Torino	6 454	2/16	5	3/71	1	2/107	1/11	0	0	0	1/27	1/142	
9	 TopOfTheMountain University of Haifa	6 517	2/27	0	3/154	0	2/93	1/5	0	0	4	1/16	1/142	
10	 EP1 École Polytechnique	6 521	1/28	0	2/143	0	1/62	1/4	5	0	0	1/22	2/222	
11	 ETH Zürich 2s1O(w) ETH Zürich	6 554	1/26	0	1/214	0	1/62	1/10	3	0	5	1/6	3/196	
12	 ENSL 2 École Normale Supérieure de Lyon	6 602	1/23	0	1/149	0	3/115	1/4	0	0	5	1/13	4/198	
13	 EPFL École Polytechnique Fédérale de Lausanne	6 755	1/17	0	1/274	0	1/117	1/9	2	0	0	1/22	5/236	
14	 ENS École Normale Supérieure de Paris	6 838	4/128	0	2/166	0	6/229	1/20	0	0	0	1/18	1/97	
15	 FCUP-1 Faculdade de Ciências da Universidade do Porto	6 849	3/34	0	2/262	0	1/229	1/8	0	0	0	1/20	4/176	
16	 UniPI Università di Pisa	6 973	2/58	0	1/289	0	2/101	1/9	0	0	0	1/21	9/295	
17	 CMD Paris-Saclay École Normale Supérieure de Paris	5 422	1/18	0	2/196	2	1/125	1/6	0	0	0	2/35	6	
18	 UPC 2 Universitat Politècnica de Catalunya	5 437	1/27	0	0	0	2/156	1/6	0	0	0	1/33	4/135	
19	 EPFL Nablá École Polytechnique Fédérale de Lausanne	5 478	2/48	0	0	0	4/189	1/11	0	0	0	1/24	2/106	
20	 ENS École Normale Supérieure de Paris	5 535	3/30	0	0	0	1/187	1/24	0	0	0	1/40	1/214	

Printing

- You can request **printouts** of your code
- Use the **judging system** or the `printout` command
- A volunteer will deliver the printout when ready

Clarification requests

- You can ask a **clarification request** to the judges using the online judging system.
- Possible **categories**:
 - Specific problem statement (e.g., Problem A).
 - Technical issue.
 - Other general issue.
- **“No comment”** when the judges decline to answer (e.g., already explained in the problem statement).
- Judges can send clarifications to **all teams**.
Check the judging system **regularly** for this.

Good luck!

- The practice is the time to test **everything**:
Please request printouts, ask for clarifications, etc.
- Try to solve **at least one problem** during the practice
- Good luck, and **have fun**!

Regarding lunch

The canteen serves **food from 12:30 to 14:00.**

- Please pick 1 starter + 1 dessert + 1 main dish (meat or vegetarian option)
- Choices are available on first come, first served basis
- Leave space for the next eaters when done eating
- You need to bring your tray to the exit and to sort your dishes.

Lunch break is the perfect time to **chat with our sponsors.**

Practice session

- You can enter the computer rooms from 14:20
- The practice contest will start at 14:30

Questions, comments, feedback. . .

SWERC'2018

