



Maratona de Programação da SBC 2019

This problem set is used in simultaneous contests: Maratona de Programação da SBC 2019
Tercera Fecha Gran Premio de México 2019
Tercera Fecha Gran Premio de Centroamérica 2019

September 14th, 2019

Erratum

As the statement of problem I, Interplanetary, is written, two conflicting interpretations are possible. The correct interpretation for the problem refers to temperatures between the hottest (or coldest) K , regardless of the number of planets with each of those temperatures. As an example, we provide the additional test case below.

Input example

```
5 5
1 1 1 2 2
1 2 100
2 3 100
3 4 1
4 5 1
5 1 100
3
1 3 1 0
1 3 2 0
1 3 1 1
```

Output example

```
200
102
102
```

Time Limits

The time limits are given in seconds:

Problem	Name	C/C++	Java	Kotlin	Python
A	Artwork	0.1	0.5	0.5	1.5
B	Buffoon	0.1	0.5	0.5	0.1
C	Crossings With Danger	1.5	6.0	6.0	3.0
D	Denouncing Mafia	0.1	0.7	0.7	0.2
E	Exhibition of Clownfish	0.1	0.5	0.5	4.5
F	Forests in Danger	0.3	3.5	3.5	0.3
G	Getting Confidence	0.1	0.3	0.3	0.1
H	Hour for a Run	0.1	0.5	0.5	0.1
I	Interplanetary	1.5	4.5	4.5	1.5
J	Jar of Water Game	0.1	0.2	0.2	0.1
K	Keep Calm and Sell Balloons	0.1	0.5	0.5	0.1
L	Less Coin Tosses	0.1	0.3	0.3	0.1
M	Maratona Brasileira de Popcorn	0.1	1.0	1.0	1.5

Memory Limits

C,C++,Python: 1GB

Java: 1GB + 100MB stack

Kotlin: 1GB + 100MB stack

Size Limits

Source code maximum size: 100KB

Output file maximum size: 1MB

Compilation Commands

C: `gcc -static -O2 -lm`

C++: `g++ -std=c++14 -static -O2 -lm`

Java: `javac`

Kotlin: `kotlinc`

C/C++

- Your program must return 0, executing, as its last instruction, `return 0` or `exit(0)`.

Java

- Do not use ‘package’ in your Java program.
- The filename rule should be followed, this is, your main public class should be named using a single uppercase character (A, B, C, ... M).
- The execution command for submissions using Java is: `java -Xms1024m -Xmx1024m -Xss100m`.

Kotlin

- Do not use ‘package’ in your Java program.
- The filename rule should be followed, this is, your main public class should be named using a single uppercase character (A, B, C, ... M).
- The execution command for submissions using Kotlin is `kotlin -J-Xms1024m -J-Xmx1024m -J-Xss100m`.
- Attention: It is not guaranteed that the solutions in Kotlin will be able to execute in the established time limit.

Python

- Be careful to select the correct version of python to submit.
- Attention: It is not guaranteed that the solutions in Kotlin will be able to execute in the established time limit.