



# ACM International Collegiate Programming Contest

## 2014

Latin American Regional Contests

*November 7th-8th, 2014*

### Contest Session

*This problem set contains 11 problems.*

*This problem set is used in simultaneous contests hosted in the following countries:*

Argentina, Bolivia, Brasil, Chile, Colombia, Cuba,  
México, Panamá, Perú, República Dominicana and Venezuela

## General information

Unless otherwise stated, the following conditions hold for all problems.

### Input

1. The input must be read from standard input.
2. The input consists of a several test cases. Each test case is described using a number of lines that depends on the problem. No extra data appear in the input. The end of input is indicated by the end of the input stream.
3. When a line of data contains several values, they are separated by *single* spaces. No other spaces appear in the input. There are no empty lines.
4. The English alphabet is used. There are no letters with tildes, accents, diacritics or other diacritical marks (ñ, Ã, é, Ì, ô, Ü, ç, etcetera).
5. Every line, including the last one, has the usual end-of-line mark.

### Output

1. The output must be written to standard output.
2. The result of the test case must appear in the output using a number of lines that depends on the problem. No extra data must appear in the output.
3. When a line of results contains several values, they must be separated by *single* spaces. No other spaces should appear in the output. There should be no empty lines.
4. The English alphabet must be used. There should be no letters with tildes, accents, diacritics or other diacritical marks (ñ, Ã, é, Ì, ô, Ü, ç, etcetera).
5. Every line, including the last one, must have the usual end-of-line mark.
6. To output real numbers, round them to the closest rational with the required number of digits after the decimal point. Test case is such that there are no ties when rounding as specified.

### Development team

*The following persons helped to develop the problem set by creating and improving statements, solutions, test cases and input and output checkers:*

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