



HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP 0

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

# A. Numbers

time limit per test: 1 second memory limit per test: 64 megabytes

Little Petya likes numbers a lot. He found that number 123 in base 16 consists of two digits: the first is 7 and the second is 11. So the sum of digits of 123 in base 16 is equal to 18.

Now he wonders what is an average value of sum of digits of the number A written in all bases from 2 to A - 1.

Note that all computations should be done in base 10. You should find the result as an irreducible fraction, written in base 10.

## Input

Input contains one integer number A ( $3 \le A \le 1000$ ).

## Output

Output should contain required average value in format «X/Y», where X is the numerator and Y is the denominator.

#### Fyamnles

input	Сору
5	
output	Сору
7/3	
input	Сору
3	
output	Сору
2/1	

### Note

In the first sample number 5 written in all bases from 2 to 4 looks so: 101, 12, 11. Sums of digits are 2, 3 and 2, respectively.

#### → Attention

The package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, a solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then the value 800 ms will be displayed and used to determine the verdict.

# **Codeforces Beta Round 13**

## **Finished**

Practice



# → Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

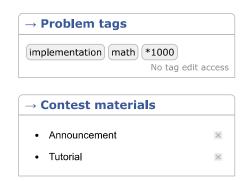
# → Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest



→ Last submissions		
Submission	Time	Verdict
326008256	Jun/25/2025 15:36	Accepted



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