



HOME TOP CONTESTS GYM PROBLEMSET GROUPS RATING API HELP DASHA 🖫 CALENDAR

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS HACKS ROOM STANDINGS CUSTOM INVOCATION

B. Multiplication Table

time limit per test: 2 seconds memory limit per test: 256 megabytes input: standard input output: standard output

Sasha grew up and went to first grade. To celebrate this event her mother bought her a multiplication table M with n rows and n columns such that $M_{ij}=a_i\cdot a_j$ where a_1,\ldots,a_n is some sequence of positive integers.

Of course, the girl decided to take it to school with her. But while she was having lunch, hooligan Grisha erased numbers on the main diagonal and threw away the array a_1, \ldots, a_n . Help Sasha restore the array!

Input

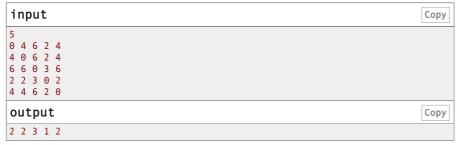
The first line contains a single integer n ($3 \leqslant n \leqslant 10^3$), the size of the table.

The next n lines contain n integers each. The j-th number of the i-th line contains the number M_{ij} ($1 \leq M_{ij} \leq 10^9$). The table has zeroes on the main diagonal, that is, $M_{ii}=0$.

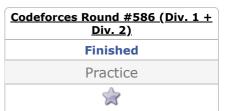
Output

In a single line print n integers, the original array a_1, \ldots, a_n ($1 \le a_i \le 10^9$). It is guaranteed that an answer exists. If there are multiple answers, print any.

Examples







→ 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

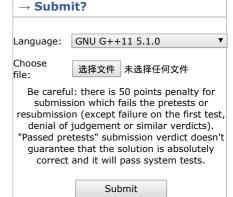
→ Practice

You are registered for practice. You can solve problems unofficially. Results can be found in the contest status and in the bottom of standings.

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest







2019/9/19 Problem - B - Codeforces

• Announcement #2 (ru)

ement #2 (ru)

<u>Codeforces</u> (c) Copyright 2010-2019 Mike Mirzayanov The only programming contests Web 2.0 platform Server time: Sep/19/2019 16:01:53^{UTC+8} (h2).

Desktop version, switch to mobile version.

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