

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

C. Little Elephant and Function

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

The Little Elephant enjoys recursive functions.

This time he enjoys the sorting function. Let a is a permutation of an integers from 1 to n , inclusive, and a_i denotes the i -th element of the permutation. The Little Elephant's recursive function $f(x)$, that sorts the first x permutation's elements, works as follows:

- If $x = 1$, exit the function.
- Otherwise, call $f(x - 1)$, and then make $swap(a_{x - 1}, a_x)$ (swap the x -th and $(x - 1)$ -th elements of a).

The Little Elephant's teacher believes that this function does not work correctly. But that-be do not get an F, the Little Elephant wants to show the performance of its function. Help him, find a permutation of numbers from 1 to n , such that after performing the Little Elephant's function (that is call $f(n)$), the permutation will be sorted in ascending order.

Input

A single line contains integer n ($1 \leq n \leq 1000$) — the size of permutation.

Output

In a single line print n distinct integers from 1 to n — the required permutation. Numbers in a line should be separated by spaces.

It is guaranteed that the answer exists.

Examples

input	Copy
1	
output	Copy
1	
input	Copy
2	
output	Copy
2 1	

→ 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.

ICPC Assiut Advanced Newcomers 2023

Private

Participant




→ Group Contests

- ICPC Assiut Advanced Newcomers 2023 Contest 5
- ICPC Assiut Advanced Newcomers 2023 Contest 4
- ICPC Assiut Advanced Newcomers 2023 Contest 3
- ICPC Assiut Advanced Newcomers Practice #1
- ICPC Assiut Advanced Newcomers 2023 Contest 2
- ICPC Assiut Advanced Newcomers 2023 Onsite Contest 2
- ICPC Assiut Advanced Newcomers 2023 Contest 1
- ICPC Assiut Advanced Newcomers 2023 Onsite Contest 1

ICPC Assiut Advanced Newcomers 2023 Contest 4

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

→ Submit?

Language: GNU G++20 11.2.0 (64 bit, w