

## A. 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

<b>input</b>
1
<b>output</b>
1
<b>input</b>
2
<b>output</b>
2 1

### → Attention

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, solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then value 800 ms will be displayed and used to determine the verdict.

### Codeforces Round #136 (Div. 2)

Finished

### → Virtual participation

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### → Problem tags

implementation math

No tag edit access

### → Contest materials

- Announcement 
- Tutorial 