A. Slightly Decreasing Permutations

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

Permutation p *is an ordered set of integers* $p_1, p_2, \ldots, p_n$*, consisting of* n *distinct positive integers, each of them doesn't exceed* n*. We'll denote the* i*-th element of permutation* p *as* p_i*. We'll call number* n *the size or the length of permutation* $p_1, p_2, \ldots, p_n$*.*

The decreasing coefficient of permutation $p_1, p_2, \ldots, p_n$ is the number of such i $(1 \le i < n)$, that $p_i > p_{i+1}$.

You have numbers n and k. Your task is to print the permutation of length n with decreasing coefficient k.

Input

The single line contains two space-separated integers: n, k $(1 \le n \le 10^5, 0 \le k < n)$ — the permutation length and the decreasing coefficient.

Output

In a single line print n space-separated integers: $p_1, p_2, \ldots, p_n$ — the permutation of length n with decreasing coefficient k.

If there are several permutations that meet this condition, print any of them. It is guaranteed that the permutation with the sought parameters exists.

Examples

input
5 2
output
1 5 2 4 3

input
3 0
output
1 2 3

input
3 2
output
3 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 #175 (Div. 2)

Finished

→ 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 ACM-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

→ Problem tags

greedy implementation

No tag edit access

→ Contest materials

- Announcement
- Tutorial #1
- Tutorial #2
- Tutorial #3