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

Copy

```
5 2
```

output

Copy

```
1 5 2 4 3
```

input

Copy

```
3 0
```

output

Copy

```
1 2 3
```

input

Copy

```
3 2
```

output

Copy

```
3 2 1
```