# C. Diverse Permutation

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

*Permutation* $p$ is an ordered set of integers $p_1, p_2, ..., p_n$, consisting of $n$ distinct positive integers not larger than $n$. We'll denote as $n$ the length of permutation $p_1, p_2, ..., p_n$.

Your task is to find such permutation $p$ of length $n$, that the group of numbers $|p_1 - p_2|, |p_2 - p_3|, ..., |p_{n-1} - p_n|$ has exactly $k$ distinct elements.

## Input

The single line of the input contains two space-separated positive integers $n, k$ $(1 \le k < n \le 10^5)$.

## Output

Print $n$ integers forming the permutation. If there are multiple answers, print any of them.

### Examples

| input |
| --- |
| 3 2 |

| output |
| --- |
| 1 3 2 |

| input |
| --- |
| 3 1 |

| output |
| --- |
| 1 2 3 |

| input |
| --- |
| 5 2 |

| output |
| --- |
| 1 3 2 4 5 |

## Note

By $|x|$ we denote the absolute value of number $x$.