

Problem G. Group the Numbers

Input file: *standard input*
Output file: *standard output*
Time limit: 1 second
Memory limit: 512 mebibytes

Consider the set of all integers from 1 to n . Split these integers into k equal-sized groups in such a way that the difference between the maximum and minimum sums of integers among all groups is minimized. Formally, if s_i is the sum of integers in i -th group, the following value should be minimized:

$$\max_{i=1}^k s_i - \min_{i=1}^k s_i.$$

Input

The first line contains two integers n and k ($1 \leq n, k \leq 100\,000$; n is divisible by k).

Output

For each group, print a line with all the integers belonging to that group. If there are multiple optimal answers, output any one of them.

Examples

standard input	standard output
6 2	1 4 5 2 3 6
12 3	1 7 12 6 10 3 9 4 5 2 8 11