Creating Chaos

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	1024 megabytes

As a *Cappuccino Assassino*, you despise order. You want everything in the world to be as chaotic as possible.

In front of you are n cups of cappuccino, arranged in a line and numbered from 1 to n. You wish to drink k of them, so that the remaining cappuccinos are as disordered as possible.

Suppose the positions of the remaining cappuccinos are $a_1, a_2, \ldots, a_{n-k}$. The degree of order is defined as: $\sum_{i=1}^{n-k} \sum_{j=i+1}^{n-k} \gcd(|a_i - a_j|, n)$, where gcd represents the greatest common divisor.

You need to minimize this degree of order and output the sequence of cappuccinos you choose to drink.

If there are multiple answers, you can output any one of them.

Input

Given two integers n, k ($1 \leq k \leq n \leq 1000$), separated by a space.

Output

k integers, representing the indices of the cappuccinos that are drunk.

Examples

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