

## D. PolandBall and Polygon

time limit per test: 4 seconds  
memory limit per test: 256 megabytes  
input: standard input  
output: standard output

PolandBall has such a convex polygon with  $n$  vertices that no three of its diagonals intersect at the same point. PolandBall decided to improve it and draw some red segments.

He chose a number  $k$  such that  $\gcd(n, k) = 1$ . Vertices of the polygon are numbered from 1 to  $n$  in a clockwise way. PolandBall repeats the following process  $n$  times, starting from the vertex 1:

Assume you've ended last operation in vertex  $x$  (consider  $x=1$  if it is the first operation). Draw a new segment from vertex  $x$  to  $k$ -th next vertex in clockwise direction. This is a vertex  $x+k$  or  $x+k-n$  depending on which of these is a valid index of polygon's vertex.

Your task is to calculate number of polygon's sections after each drawing. A section is a clear area inside the polygon bounded with drawn diagonals or the polygon's sides.

### Input

There are only two numbers in the input:  $n$  and  $k$  ( $5 \leq n \leq 10^6$ ,  $2 \leq k \leq n-2$ ,  $\gcd(n, k) = 1$ ).

### Output

You should print  $n$  values separated by spaces. The  $i$ -th value should represent number of polygon's sections after drawing first  $i$  lines.

### Examples

input
5 2
output
2 3 5 8 11

  

input
10 3
output
2 3 4 6 9 12 16 21 26 31

### Note

The greatest common divisor (gcd) of two integers  $a$  and  $b$  is the largest positive integer that divides both  $a$  and  $b$  without a remainder.

For the first sample testcase, you should output "2 3 5 8 11". Pictures below correspond to situations after drawing lines.