A. Petya and Inequiations

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Little Petya loves inequations. Help him find n positive integers $a_1, a_2, ..., a_n$, such that the following two conditions are satisfied:

- $a_1^2 + a_2^2 + ... + a_n^2 \geq x$
- $a_1 + a_2 + ... + a_n \leq y$

Input

The first line contains three space-separated integers n, x and y ($1 \leq n \leq 10^5$, $1 \leq x \leq 10^{12}$, $1 \leq y \leq 10^6$).

Please do not use the %lld specificator to read or write 64-bit integers in C++. It is recommended to use cin, cout streams or the %I64d specificator.

Output

Print n positive integers that satisfy the conditions, one integer per line. If such numbers do not exist, print a single number "-1". If there are several solutions, print any of them.

Examples

input
5 15 15

output
4 4 1 1 2

input
2 3 2

output
-1

input
1 99 11

output
11