

B. Equation

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

You are given an equation:

$$Ax^2 + Bx + C = 0.$$

Your task is to find the number of distinct roots of the equation and print all of them in ascending order.

Input

The first line contains three integer numbers A , B and C ($-10^5 \leq A, B, C \leq 10^5$). Any coefficient may be equal to 0.

Output

In case of infinite root count print the only integer -1 . In case of no roots print the only integer 0 . In other cases print the number of root on the first line and the roots on the following lines in the ascending order. Print roots with at least 5 digits after the decimal point.

Examples

input
1 -5 6
output
2 2.0000000000 3.0000000000