Quadratic Equation

Problem ID: a02p04quadraticequation

A quadratic equation has the form $ax^2 + bx + c = 0$ for any arbitrary $a, b,$ and c. To check whether the equation has a real solution or not, the quadratic formula for the discriminant is used. The formula for the discriminant (ísl: aðgreinir) is given as $d = b^2 - 4ac$.

- If $d > 0$ then the quadratic equation has 2 real solutions.
- If $d = 0$ then the quadratic equation has 1 real solutions.
- If $d < 0$ then the quadratic equation has 0 real solutions.

Write a program that finds how many solutions a given quadratic equation has.

Input

Input consists of three lines.
The first line consists of one integer a, where $-10^6 \leq a \leq 10^6$ The second line consists of one integer b, where $-10^6 \leq b \leq 10^6$ The third line consists of one integer c, where $-10^6 \leq c \leq 10^6$

Output

Output consists of one line containing one integer, the number of real solutions.

Sample Input 1	Sample Output 1
3 6 0	2

Sample Input 2	Sample Output 2
3 -6 4	0

Sample Input 3	Sample Output 3
2 4 2	1

Sample Input 4	Sample Output 4
144 96 16	1

Sample Input 5	Sample Output 5
-16 -112 -196	1