**Min value of x**

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Given 4 integers a,b,c and k . Find the min value of x such that ax2+bx+c >= k.

**INPUT:**  
The first line contains a single integer **T** i.e. the number of test cases. The first and the only line in each test case consists of four integers **a**,**b**,**c** and **k**.

**OUTPUT:**  
Print the min value of the **x** so that the answer from the equation is atleast equal to k.

**CONSTRAINTS:**  
1<=T<=100  
1<= a,b,c <=105  
1<=k<=109

**EXAMPLES:  
INPUT:**  
2  
4 6 5 5  
1 2 3 4

**OUTPUT:**  
0  
1

\*\*For More Examples Use Expected Output\*\*

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<http://practice.geeksforgeeks.org/problems/min-value-of-x/0>

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package javaapplication250;

import java.io.\*;

import java.math.\*;

import java.util.\*;

/\*\*

\*

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\*/

public class JavaApplication250 {

public static void main(String[] args) throws IOException {

// TODO code application logic here

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

int t = Integer.parseInt(br.readLine());

while(t-- > 0) {

String[] input = br.readLine().trim().split(" ");

int a = Integer.parseInt(input[0]);

int b = Integer.parseInt(input[1]);

int c = Integer.parseInt(input[2]);

int k = Integer.parseInt(input[3]);

int min =0;

for(int x=0; ;x++) {

if(a\*x\*x+b\*x+c >=k) {

min =x;

break;

}

}

System.out.println(min);

}

}

}