

A. Martadella Strikes Again

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

Saeed and Shahhoud were attending a training camp for the ACM ICPC 2018 World Finals.

At dinner, they were very happy to see that the meal was martadella slices! **A martadella slice can be seen as a circle.**

Shahhoud received a martadella slice with a radius of R , while Saeed received two martadella slices with a radius of r each.

Saeed and Shahhoud were arguing about who received more martadella, can you help them find out?

Print "1" if the area of Shahhoud's martadella slice is strictly larger than the sum of the areas of the two slices that Saeed received, Otherwise, print "2" .

Input

The first line contains a single integer T , the number of test cases.

Each test case consists of a single line containing two integers R and r . ($1 \leq R, r \leq 10^8$)

Output

For each test case, print "1" if the area of a martadella slice with radius R is strictly larger than the sum of areas of two martadella slices with radius r each, and print "2" otherwise.

Example

input	Copy
2 4 2 4 3	
output	Copy
1 2	