Ryan's Pizza Restaurant

After the Quiz two, Kengood, Warenix, and Kenneth go to their favorite restaurant, Ryan's Pizza Restaurant. They are really hungry after trying hard for five hours. To get their pizza as quickly as possible, they just decided to order one big pizza for all instead of several small ones. They wonder whether it is possible to put the big rectangular pizza on the surface of the round table such that it does not overhang the border of the table. Write a program that helps them!

Input Specification

The input file contains several test cases. Each test case starts with an integer number r, the radius of the surface of the round table the contestants are sitting at. Input is terminated by $r=0$. Otherwise, $1 \leq r \leq 1000$. Then follow 2 integer numbers w and l specifying the width and the length of the pizza, $1 \leq w \leq l \leq 1000$.

Output Specification

Output for each test case whether the ordered pizza will fit on the table or not. Adhere to the format shown in the sample output. A pizza which just touches the border of the table without intersecting it is considered fitting on the table, see example 3 for clarification.

Sample Input

```
38 40 60
35 20 70
50 60 80
0
```

Sample Output

```
Pizza 1 fits on the table.
Pizza 2 does not fit on the table.
Pizza 3 fits on the table.
```

Modified from ulm local contest