Type of triangle

Given lengths **a**, **b** and **c** of triangle's sides determine it's type.

Input

There is unknown number of tests. Each of them consists of one line in which appear three integers: **a**, **b** and **c** (all < 10000).

Output

For each test print one word:

- right - if triangle is right
- obtuse - if triangle is obtuse
- acute - if triangle is acute
- none - if there is no such a triangle

Example

Input:
1 1 10
3 4 5
2 3 4
7 7 7
Output:
none
right
obtuse
acute