



The 41th ACM-ICPC Asia Pyongyang Regional Contest



Problem 9. International Network Service

Time Limit : 1 second
Memory Limit : 256 megabytes

Description

There are a lot of network servers on the sphere of the Earth.

For each number i , the i -th network server have a characteristic value R_i called "radius" and it can serve all the points that the distance from server to the point is not bigger than R_i .

Then some points can be served from many servers.

Your task is to find the point that can be served from maximum number of servers.

Note that the Earth is a complete sphere with radius 6370, and the distance between two points on the surface of the Earth is not Euclidean distance but distance on the surface.

To make problem easy, all the radius of network servers are between 2012 and 2016 (inclusive).

Input

The first line contains one integer T ($1 \leq T \leq 6$) - indicating the number of test cases.

The first line of each case contains one N ($1 \leq N \leq 1000$) - the number of network servers.

The next N lines contains three integers - the longitude and latitude of the position and the radius of servers.

$0 \leq longitude < 360, -90 < latitude < 90$

Output

Print the answer of the problem.



The 41th ACM-ICPC Asia Pyongyang Regional Contest



Sample Input

```
1
2
0 0 2012
0 1 2016
```

Sample Output

```
2
```