Buffalo Bill wishes to cross a 1000×1000 square field. A number of snakes are on the field at various positions, and each snake can strike a particular distance in any direction. Can Bill make the trip without being bitten?

Input

The input begins with a single positive integer on a line by itself indicating the number of the cases following, each of them as described below. This line is followed by a blank line, and there is also a blank line between two consecutive inputs.

Assume that the southwest corner of the field is at (0,0) and the northwest corner at (0,1000). The input consists of a line containing $n \leq 1000$, the number of snakes. A line follows for each snake, containing three real numbers: the (x,y) location of the snake and its strike *distance*. The snake will bite anything that passes closer than this distance from its location.

Bill must enter the field somewhere between the southwest and northwest corner and must leave somewhere between the southeast and northeast corners.

Output

For each test case, the output must follow the description below. The outputs of two consecutive cases will be separated by a blank line.

If Bill can complete the trip, give coordinates at which he may enter and leave the field. If Bill may enter and leave at several places, give the most northerly. If there is no such pair of positions, print 'Bill will be bitten.'

Sample Input

```
1

3
500 500 499
0 0 999
1000 1000 200
```

Sample Output

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Bill enters at (0.00, 1000.00) and leaves at (1000.00, 800.00).
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