

[A2] Bullet Ricochet (50 pts)

Time Limit: 1s
Memory Limit: 512MB

Problem Description

You run your fingers along the wall and find another one. A small round depression on the brick that lines the walls of this alleyway. “Here!”, you shout to Inspector Mont. “Nice find Doctor Watts!” The inspector writes down the properties of the depression on his notebook.

You stare at the dead body leaning on the wall at the end of the alley. “Do you think its NELOC? Such a shame they got to our informant before we did”, you tell the inspector. The inspector looks at the opening of the alley clearly lost in his own thoughts.

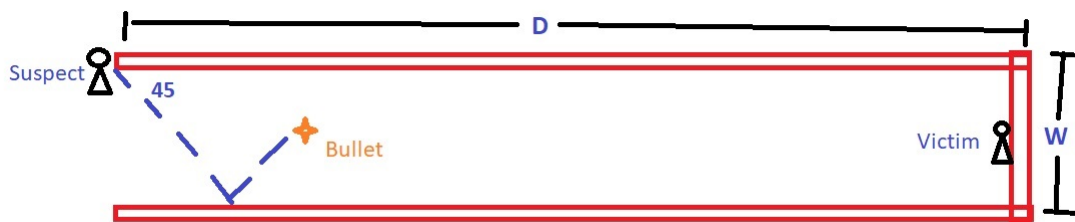


Figure 1: Badly drawn sketch of the crime scene taken from the inpector’s notebook

After a few seconds, inspector Mont breaks the silence “Doctor, did you know I used to own a flintlock pistol collection? I distinctly remember flintlocks making these exact same markings when hitting a wall.” He continues on to discuss flintlocks and the behavior of bullets shot from it. He mentions that bullets shot at a 45 degree angle to a wall bounce at the opposite 45 degree angle. He also talks about bullets having a fixed number of ricochets before it stops.

He picks up the lead bullet from the ground beside the body and inspects it with his magnifying glass. He mutters, “A bullet like this should be able to bounce B times before stopping. I think our killer shot a single bullet at a 45 degree angle from the corner of this alley and used the ricochet to get to our guy”. He also mentions that it was a shrapnel bullet which wouldve killed anyone leaning on the wall at the end of the alley. (Note that if the bullet hits the corner at the end of the alley, it does not bounce since it automatically explodes). He pauses and stares at you, “Don’t believe me? Why dont you check for yourself?”.

Given the depth D , width W and the maximum number of bounces B , determine whether a bullet fired from a corner of the alley at 45 degrees could have reached the other end and hit our informant.

Input Specification

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

Each test case consists of a single line with 3 space separated integers, D — the depth of the alley, W — the width of the alley and B — the maximum number of ricochet bounces for the bullet.

Note that D always pertains to the side of the alley lined with walls. More explicitly, D is the distance from the opening of the alley to the wall with the body; while W pertains to the sides with the opening and the end of the alley.

Output Specification

For each test case, output “CORRECT” if the bullet can reach the end of the alleyway. Otherwise output “I OBJECT”

Constraints

$1 \leq T \leq 100$
 $1 \leq D, W, B \leq 10^5$

Sample Input

```
3
3 1 3
10 1 2
4 2 10
```

Sample Output

```
CORRECT
I OBJECT
CORRECT
```