

# Problem A

## Angry Birbs

Everyone knows that green pigs are the enemies of the birbs because they are very greedy and often steal eggs from the birbs. A battle between birbs and pigs broke out to reclaim the eggs. The pigs had built fortresses and hidden the eggs inside. But with their strong physical abilities, the birbs chose to fly and dove straight into the pig's fortresses. It might seem like a mindless strategy, but it was very effective and completely destroyed the fortresses of the opponents and the eggs were retrieved countless times. Whether the fortress is on the ground, in the clouds, or underwater, the birbs can reach the pig's fortress.

With advancing technology and the huge collection of data on how the birbs attack, the pigs have concluded that the flight trajectory of the birbs can be represented by the equation:

$$h = a + b \cdot x + c \cdot x^2$$

where  $h$  is the current height above sea level (can be negative when the birb is underground or underwater),  $x$  is the current horizontal position of the birb, and  $a$ ,  $b$ , and  $c$  are the parameters of the trajectory equation.

With this discovery, the pigs further study the characteristics of the birb's flight trajectory to come up with the best defense plan. However, the next wave of birb attacks is imminent, so the pigs will not have much time. Therefore, the pigs only choose to reinforce the roof or the floor in the following cases:

1. If the initial height of the birb increases to a maximum height and then decreases, we say that the birb's trajectory is a *curve down*. In this case, the pigs will reinforce the roof.
2. If the initial height of the birb decreases to a minimum height and then increases, we say that the birb's trajectory is a *curve up*. In this case, the pigs will reinforce the floor.
3. If the birb's trajectory does not have a highest or lowest point, we say that the birb's trajectory is *not curved*. In this case, the pigs will be confused because there might be something wrong with their finding.

Given the parameters  $a$ ,  $b$ , and  $c$  of the birb's trajectory equation, help the pigs determine which type of trajectory it is among the three types described above.

### Input

The first line contains an integer  $t$  ( $1 \leq t \leq 10\,000$ ) – the number of test cases. The description of each test case is as follows.

The first and only line of each test case contains three integers  $a$ ,  $b$ , and  $c$  ( $|a|, |b|, |c| \leq 10^9$ ) – the parameters of the trajectory equation of a birb about to dive into the pig's fortress.

### Output

For each test case, print a line:

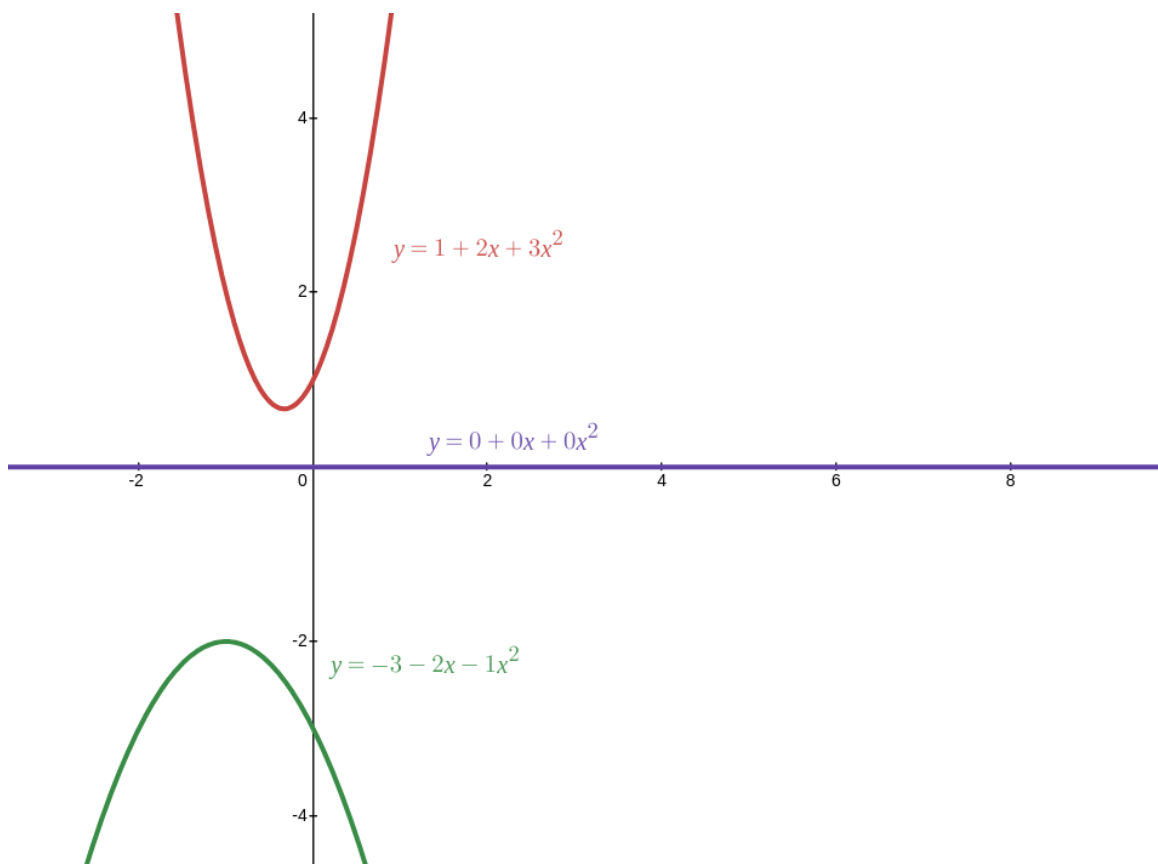
- If the birb's trajectory is a *curve down*, print "CURVE DOWN" (without the quotation marks).

- If the birb's trajectory is a *curve up*, print "CURVE UP" (without the quotation marks).
- If the birb's trajectory is *not curved*, print "NO CURVE" (without the quotation marks).

### Sample explanation

The below image illustrates the birbs' trajectory in the sample.

- The **red** line is the birb's trajectory from the first test case.
- The **green** line is the birb's trajectory from the second test case.



#### Sample Input 1

```
2
1 2 3
-3 -2 -1
```

#### Sample Output 1

```
CURVE UP
CURVE DOWN
```