

Problem Statement

There are N toilets in a row indexed from 1 to N . At a time, 2 people enter the washroom. The **degree of dirtiness** of each toilet is 0 initially and it increases by 1 after it is used each time. The 1st person occupies the 1st toilet with the lowest degree of dirtiness moving from 1 to N . The 2nd person occupies the toilet with the lowest degree of dirtiness moving from N to 1. The next two people enter the toilet when the first two people have left. Find the index of toilet and degree of dirtiness for the M^{th} person.

Note In case M is odd, the last person walks into the washroom alone and occupies the least dirty toilet moving from 1 to N .

Input Format

The first line contains T , the number of test cases. Each test case consists of one line containing N , the number of toilets, and M , the person to enter the toilet, separated by space.

Output Format

The index of the toilet used by M and its degree of dirtiness D .

Constraints

- $1 \leq T \leq 10$
- $1 \leq N \leq 50000$
- $1 \leq M \leq 10^6$

Sample Input

```
3
10 3
5 8
4 26
```

Sample Output

```
2 0
4 1
4 6
```

Explanation

In the second test case,
for the first two persons, positions are 1 _ _ _ 2, degree of dirtiness 0 0 0 0 0 (dirtiness is 0 since they are the first to use it)
for person 3 and 4, positions are _ 3 _ 4 _ , degree of dirtiness 1 0 0 0 1
for 5 and 6, positions are _ _ 5 _ 6, degree of dirtiness 1 1 0 1 1
for 7 and 8, positions are 7 _ _ 8 _ , degree of dirtiness 1 1 1 1 2 so the answer is 4,1