In many cases we need to draw lots for determination. One simple way is to select a single number n and a starting person p so that the next n^{th} person after the starting person p will be selected. As the number would be larger than the total number of persons, the counting process is done circularly. Write a program to help the calculation.

Input

The input contains several cases which is indicated by the first input. Each case contains three integers, which in turn denote and the number n, the starting person p, and the number of persons P.

Output

For each case, output the case number and the number of the selected person. Each output should be in separate line.

Sample Input

```
3
2 4 6
5 1 9
3 7 8
```

Sample Output

```
Case 1: 6
Case 2: 6
Case 3: 2
```