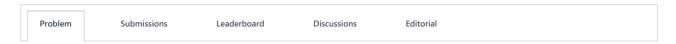


Save the Prisoner!





A jail has **N** prisoners, and each prisoner has a unique id number, **S**, ranging from **1** to **N**. There are **M** sweets that must be distributed to the prisoners.

The jailer decides the fairest way to do this is by sitting the prisoners down in a circle (ordered by ascending S), and then, starting with some random S, distribute one candy at a time to each sequentially numbered prisoner until all M candies are distributed. For example, if the jailer picks prisoner S = 2, then his distribution order would be $(2, 3, 4, 5, \ldots, n-1, n, 1, 2, 3, 4, \ldots)$ until all M sweets are distributed.

But wait—there's a catch—the very last sweet is poisoned! Can you find and print the ID number of the last prisoner to receive a sweet so he can be warned?

Input Format

The first line contains an integer, T, denoting the number of test cases.

The $m{T}$ subsequent lines each contain $m{3}$ space-separated integers:

 $m{N}$ (the number of prisoners), $m{M}$ (the number of sweets), and $m{S}$ (the prisoner ID), respectively.

Constraints

- $1 \le T \le 100$
- $1 \le N \le 10^9$
- $1 \le M \le 10^9$
- $1 \le S \le 10^9$

Output Format

For each test case, print the ID number of the prisoner who receives the poisoned sweet on a new line.

Sample Input

5 2 1

Sample Output

2

Explanation

There are N=5 prisoners and M=2 sweets. Distribution starts at ID number S=1, so prisoner 1 gets the first sweet and prisoner 2 gets the second (last) sweet. Thus, we must warn prisoner 2 about the poison, so we print 2 on a new line.



Current Buffer (saved locally, editable) & 🗘









```
1
   using System;
   using System.Collections.Generic;
   using System.IO;
 4 v class Solution {
 5 ₹
        static void Main(String[] args) {
 6
            /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution
 7
 8
            int t = int.Parse(Console.ReadLine());
 9
10
                while (t-- > 0)
11 🔻
                    string[] input = Console.ReadLine().Split(' ');
12
13
                    int n = int.Parse(input[0]);//prisioneros
                    int m = int.Parse(input[1]);//dulces
14
15
                    int s = int.Parse(input[2]);//id
16
                    //string[] input = "999999999 999999999 1".Split(' ');
17
                    //long n = int.Parse(input[0]);//prisioneros
18
19
                    //long m = int.Parse(input[1]);//dulces
20
                    //long s = int.Parse(input[2]);//id
21
                    long resto = m % n;
22
23
                    resto += (s - 1);
                    if (resto > n)
24
25 ▼
26
                        resto -= n;
27
28
                    if (resto == 0)
29 🔻
                    {
30
                        resto = n;
31
32
                    Console.WriteLine(resto);
33
34
                }
35
        }
36
   }
                                                                                                                Line: 21 Col: 1
                       Test against custom input
                                                                                                                  Submit Code
1 Upload Code as File
                                                                                                     Run Code
                                        Congrats, you solved this challenge!
```



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