# Another Josephus

## Description

There are n students should be awarded after the school programming contest , to make the awards process more interesting , the coach use a new awarding method .

The n students stands in a circle, numbered from 0 to n-1. If the number of the rest students is odd, the next xth student get his/her award and leave this circle; if the number of the rest students is even, the next yth student get his/her award and leave this circle. The longer the student stay in this circle, the more awards he will be prized. Given the n, x, y, you should out put the number of the student who will get the biggest prize(be the last one stand).

## Input

The first line contains a integer T ( T <= 20 ), then T cases follows.

In each case, there are 3 integers n, x, y in one line.

0 < n <= 1000000

0 < x, y <= 1000000

## Output

For each case, you should out put the number of the student who will get the biggest prize(be the last one stand) in a single line.

## Sample

|  |  |
| --- | --- |
| **Input** | **Output** |
| 3  1 3 5  11 3 5  11 1 1 | 0  8  10 |

## Hint

The second example's awarding order :

2, 7, 10, 5, 9, 6, 1, 3, 0, 4, 8

so the student with numbered 8 will get the biggest prize.