

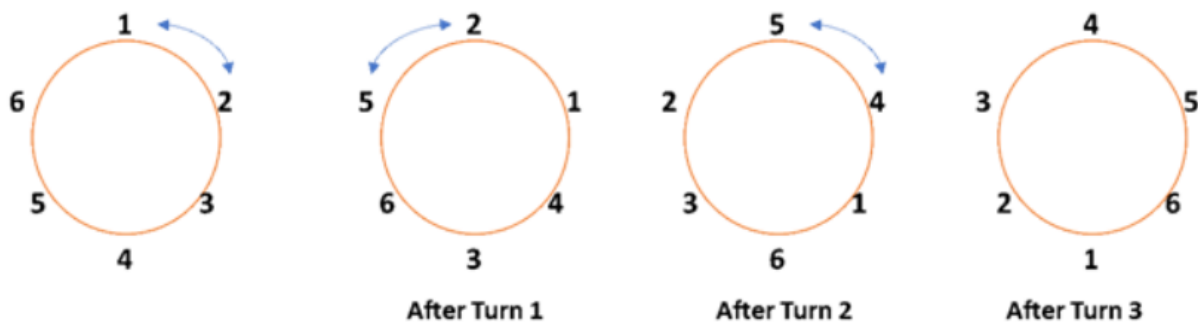
## Problem Description

As part of the Physical Training (PT) drill sessions, the physical trainer of Horizon School started a new exercise for the young students. Students are asked to stand along the circle and move according to the instruction. When the PT trainer says a Turn, students need to swap their position with the nearest student. When it's an odd-numbered turn, one needs to change own position with the student standing left to him i.e. move in clockwise way. When it's an even-numbered turn, swap should be anti-clockwise i.e. change the position with student on the right side. The Turn starts with student at 12 O' clock position on the odd turn and from number to the right of 12 O' clock on the even turn when the number of students is odd. The Turn always starts with student at 12 O' clock position when the number of students is even. If there are odd number of students in the circle, obviously, that student will have no partner to swap position with. A student changes own position at the most, once in every turn.

Write a program to display the student standing to the left and to the right of a specified student after N number of turns.

Let's understand, the Turns a little better through this exam

- Number of students =6
- Number of Turns =3
- Left and right of student 6 => 1 and 5



**At Turn 1**, per rules, student at 12 O clock position is student 1. Hence, he must swap his position with his neighbor on the left. Student 3 must swap position with student 4 and Student 6 must swap position with student 5

**At Turn 2**, student at 12 O clock position is student 2. Hence, he must swap his position with his neighbor on the right with student 5. Student 6 must swap position with student 3 and Student 4 must swap position with student 1

**At Turn 3**, student at 12 O clock position is student 5. Hence, he must swap his position with his neighbor on the left with student 4. Student 1 must swap position with student 6 and Student 3 must swap position with student 2

After Turn 3, the position of students along the circle is as depicted in the rightmost image.

## Constraints

$$3 \leq S \leq 10000$$

$$0 < T < 10000$$

$$0 < M < 1000$$

**Input**

First line contains three space separated integers S, T and M where

**S** indicates the number of students,

**T** indicates the turns and

**M** indicates the specified student whose neighbours we need to find out

**Output**

Output one line that contains two integers L and R, where

**L** indicates the student on the left of M and

**R** indicates the student on the right of M.

**Time Limit**

1

**Examples**Example 1

Input

6 3 2

Output

3 1

Explanation:

The sequence after 3 turns of 6 students would be 4 5 6 1 2 3. So, left and right of 2 in the circle would be 3 and 1 respectively.

Example 2

Input

7 2 7

Output

5 3

Explanation:

The sequence after 2 turns of 7 students would be 2 4 1 6 3 7 5. So, left and right of 7 in the circle would be 5 and 3 respectively.