

# Reverse Game



Akash and Akhil are playing a game. They have  $N$  balls numbered from  $0$  to  $N - 1$ . Akhil asks Akash to reverse the position of the balls, i.e., to change the order from say,  $0,1,2,3$  to  $3,2,1,0$ . He further asks Akash to reverse the position of the balls  $N$  times, each time starting from one position further to the right, till he reaches the last ball. So, Akash has to reverse the positions of the ball starting from  $0^{th}$  position, then from  $1^{st}$  position, then from  $2^{nd}$  position and so on. At the end of the game, Akhil will ask Akash the final position of any ball numbered  $K$ . Akash will win the game, if he can answer. Help Akash.

## Input Format

The first line contains an integer  $T$ , i.e., the number of the test cases.

The next  $T$  lines will contain two integers  $N$  and  $K$ .

## Output Format

Print the final index of ball  $K$  in the array.

## Constraints

$$1 \leq T \leq 50$$

$$1 \leq N \leq 10^5$$

$$0 \leq K < N$$

## Sample Input

```
2
3 1
5 2
```

## Sample Output

```
2
4
```

## Explanation

For first test case, The rotation will be like this:

$0\ 1\ 2 \rightarrow 2\ 1\ 0 \rightarrow 2\ 0\ 1 \rightarrow 2\ 0\ 1$

So, Index of 1 will be 2.