

Aim:**Question description:**

Issac is a Language teacher at a high school in Madurai. Sabari is a student, he is studying programming during Language class. Issac tells Sabari to leave the other subject and learn Tamil. Sabari asked permission for 10 minutes, Finally, Sabari got permission to solve the program.

The computer teacher has given homework on the topic of Arrays and where he needs to do Array Rotation as per the input of the question. But Sabari is not good at C Programming. Can you help him to solve the programming problem?

Constraints:

- $0 < n < 100$
- $0 < arr < 1000$

Input Format:

- The first line predicts the total number of elements present in the array.
- The second line contains the elements of an array.
- The third line contains the number of rotations needs to be done.
- The fourth line contains the character 'L' or 'R' that defines what type of rotation needs to be done.

Output Format:

- The output contains a line that is only the resultant output.

Source Code:

```
arrayRotation.c
```

```
#include <stdio.h>
void rotLeft(int[],int,int);
void rotRight(int[],int,int);
void print(int[],int);
int main()
{
    int n,d;
    scanf("%d",&n);int arr[n],i;
    for(i=0;i<n;i++)
    {
        scanf("%d",&arr[i]);
    }
    scanf("%d",&d);
    char rotation;
    rotation=getchar();
    scanf("%c",&rotation);
    if(rotation=='L')
    {
        rotLeft(arr,n,d);
        print(arr,n);
    }
    else
```

```

    {
        rotRight(arr,n,d);
        print(arr,n);

    }
    return 0;

}

void rotRight(int arr[],int n,int d) {
    for(int i = 0;i<d;i++){
        int temp = arr[n - 1];
        for(int j=n-1;j>0;j--){
            arr[j]=arr[j - 1];
        }
        arr[0] = temp;
    }
}

void rotLeft(int arr[],int n,int d) {
    for(int i=0;i<d;i++){
        int temp = arr[0];
        for(int j=0;j<n-1;j++){
            arr[j] = arr[j+1];
        }
        arr[n-1] = temp;
    }
}

void print(int arr[],int n) {
    for(int i=0;i<n;i++){
        printf("%d ",arr[i]);
    }
}
}

```

Execution Results - All test cases have succeeded!

Test Case - 1

User Output

5
1 2 3 4 5
4
L
5 1 2 3 4

Test Case - 2

User Output

7
10 11 12 13 14 15 16
4
R
13 14 15 16 10 11 12