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# **Arrays: Left Rotation** ■



Problem

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Check out the resources on the page's right side to learn more about arrays. The video tutorial is by Gayle Laakmann McDowell, author of the best-selling interview book Cracking the Coding Interview.

A left rotation operation on an array of size n shifts each of the array's elements 1 unit to the left. For example, if 2 left rotations are performed on array [1, 2, 3, 4, 5], then the array would become [3, 4, 5, 1, 2].

Given an array of n integers and a number, d, perform d left rotations on the array. Then print the updated array as a single line of space-separated integers.

#### **Input Format**



The first line contains two space-separated integers denoting the respective values of n (the number of integers) and d (the number of left rotations you must perform).

The second line contains n space-separated integers describing the respective elements of the array's initial state.

#### **Constraints**

- $1 \le n \le 10^5$
- $1 \le d \le n$
- $1 \le a_i \le 10^6$

#### **Output Format**

Print a single line of n space-separated integers denoting the final state of the array after performing d left rotations.

## **Sample Input**

1 2 3 4 5

#### **Sample Output**

5 1 2 3 4

### **Explanation**

When we perform d=4 left rotations, the array undergoes the following sequence of changes:

$$[1,2,3,4,5] \rightarrow [2,3,4,5,1] \rightarrow [3,4,5,1,2] \rightarrow [4,5,1,2,3] \rightarrow [5,1,2,3,4]$$

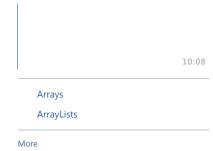
Thus, we print the array's final state as a single line of space-separated values, which is 5 1 2 3 4.

Submissions: 33543 Max Score: 20

Difficulty: Easy

Rate This Challenge: \*\*\*\*

Need Help?



Run Code

Submit Code

```
C#
 Current Buffer (saved locally, editable) & • •
    using System;
    using System.Collections.Generic;
2
3
    using System.IO;
4
    using System.Linq;
5
    class Solution {
                                                                                                                    6
7
        static void Main(String[] args) {
8
              string[] tokens_n = Console.ReadLine().Split(' ');
9
                 int n = Convert.ToInt32(tokens_n[0]);
                 int d = Convert.ToInt32(tokens_n[1]);
10
                 string[] a_temp = Console.ReadLine().Split(' ');
11
                 int[] a = Array.ConvertAll(a_temp, e=>int.Parse(e));
12
13
14
                 d = d \% a.Length;
15
                 int indiceUltimo = (a.Length - 1) - d;
16
17
                 //Console.WriteLine(indiceUltimo);
18
19
                 int indiceEmpieza = (a.Length - 1) - indiceUltimo;
20
21
                 for (int i = indiceEmpieza; i < a.Length; i++)</pre>
22 🔻
                     Console.Write(a[i] + " ");
23
24
25
                 for (int i = 0; i < indiceEmpieza; i++)</pre>
26
27
                     Console.Write(a[i] + " ");
28
29
30
31
                                                                                                        Line: 18 Col: 1
```

	Congrats, you solved this challenge	<del>5:</del>
✓ Test Case #0	✓ Test Case #1	✓ Test Case #2
✓ Test Case #3	✓ Test Case #4	✓ Test Case #5
✓ Test Case #6	✓ Test Case #7	✓ Test Case #8
✓ Test Case #9		
		Next Challenge

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Test against custom input

**1** Upload Code as File

