

















Dashboard > Data Structures > Arrays > Left Rotation

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# Left Rotation



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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**

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

## **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

5 4

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  $5\ 1\ 2\ 3\ 4$ .

f ⊌ in

 $\textbf{Submissions:} \underline{67180}$ 

Max Score:20 Difficulty: Easy

Rate This Challenge: ☆☆☆☆☆☆

```
Current Buffer (saved locally, editable) & 🗘
                                                                                             Java 8
 1 ▼ import java.io.*;
    import java.util.*;
    import java.text.*;
    import java.math.*;
    import java.util.regex.*;
 6
 7 ▼ public class Solution {
 8
 9 ▼
         static int[] leftRotation(int[] a, int d) {
10
             // Complete this function
11
12
         public static void main(String[] args) {
13 ▼
14
             Scanner in = new Scanner(System.in);
15
             int n = in.nextInt();
             int d = in.nextInt();
16
17 ▼
             int[] a = new int[n];
             for(int a_i = 0; a_i < n; a_{i++}){
18 ▼
                 a[a_i] = in.nextInt();
19 ▼
20
21
             int[] result = leftRotation(a, d);
22 🔻
             for (int i = 0; i < result.length; i++) {</pre>
                 System.out.print(result[i] + (i != result.length - 1 ? " " : ""));
23 ▼
24
25
             System.out.println("");
26
27
28
             in.close();
29
         }
30
     }
31
                                                                                                                      Line: 1 Col: 1
                                                                                                          Run Code
1 Upload Code as File
                      Test against custom input
                                                                                                                       Submit Code
```

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