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Left Rotation

by [saikiran9194](#)

Problem

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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

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

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`.


Submissions: [36276](#)

Max Score: 20

Difficulty: Easy

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C#   

```
1 using System;
2 using System.Collections.Generic;
3 using System.IO;
4 class Solution {
5
6     static int[] rotateLeft(int[] a, int d)
7     {
8         d = d % a.Length;
9
10        int[] temp = new int[d];
11        for (int i = 0; i < d; i++)
12        {
13            temp[i] = a[i];
14        }
15
16        for (int i = d; i < a.Length; i++)
17        {
18            a[i - d] = a[i];
19        }
20        int indice_temp = 0;
21        for (int i = a.Length - d; i < a.Length; i++)
22        {
23            a[i] = temp[indice_temp++];
24        }
25
26        return a;
27    }
28
29
30    static void Main(string[] args)
31    {
32        //int[] a = { 1, 2, 3, 4, 5, 6, 7 };
33        // rotateLeft(a, 2);
34
35        string[] nd = Console.ReadLine().Split(' ');
36        int n = int.Parse(nd[0].ToString());
37        int d = int.Parse(nd[1].ToString());
38
39        int[] a = Array.ConvertAll(Console.ReadLine().Split(' '), e => int.Parse(e));
40
41        foreach (int elem in rotateLeft(a, d))
42        {
43            Console.Write(elem + " ");
44        }
45
46        Console.ReadLine();
47
48    }
49 }
```

Line: 18 Col: 33

 [Upload Code as File](#)☐ Test against custom input

Run Code

Submit Code

Congrats, you solved this challenge!

✓ Test Case #0

✓ Test Case #3

✓ Test Case #6

✓ Test Case #1

✓ Test Case #4

✓ Test Case #7

✓ Test Case #2

✓ Test Case #5

✓ Test Case #8

✓ Test Case #9

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