Arrays: Left Rotation

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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

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

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`.

10:08

Arrays

ArrayLists

More

Current Buffer (saved locally, editable)

Python 2

```
1  def array_left_rotation(a, n, k):
2      return a[k:]+a[:k]
3
4  n, k = map(int, raw_input().strip().split(' '))
5  a = map(int, raw_input().strip().split(' '))
6  answer = array_left_rotation(a, n, k);
7  print ' '.join(map(str,answer))
8
```

Line: 1 Col: 1

Upload Code as File

Test against custom input

Run Code

Submit Code