

SOFTWARE DEVELOPER ASSESSMENT

RULE: AN ANSWER CAN BE WRITTEN IN **ANY** PROGRAMMING LANGUAGE PROVIDED YOU INDICATE WHICH IN YOUR ANSWER. CONSIDER EDGE CASES & TIME OPTIMIZATION.

TIME: 45 MINS

1. LEFT ROTATION:

A left rotation operation on an array 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]**. Note that the lowest index item moves to the highest index in a rotation. This is called a circular array.

Given an array **a** of **n** integers and a number, **d**, perform **d** left rotations on the array. Return the updated array to be printed as a single line of space-separated integers.

Function Description

Complete the function `rotLeft` below.

`rotLeft` has the following parameter(s):

- `int a[n]`: the array to rotate
- `int d`: the number of rotations

Function:

JAVA: `public static List<Integer> rotLeft(List<Integer> a, int d){}`

JAVASCRIPT: `function rotLeft(a,d){}`

TYPESCRIPT: `function rotLeft(a: number[], d: number): number[] {}`

PYTHON: `def rotLeft(a, d):`

C++: `vector<int> rotLeft(vector<int> a, int d) {}`

//Indicate if you require this function signature in any other language

Returns

- `int a'[n]`: the rotated array

Input Format

Your method has two arguments: The array **a** and the number of rotations, **d**.

Constraints

- $1 \leq n \leq 10^5$
- $1 \leq d \leq n$
- $1 \leq a[i] \leq 10^5$

Sample Input

5 4
12345

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] -> [2,3,4,5,1] -> [3,4,5,1,2] -> [4,5,1,2,3] -> [5,1,2,3,4]