# Left Rotation \*

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A *left rotation* operation on a circular array shifts each of the array's elements 1 unit to the left. The elements that fall off the left end reappear at the right end. Given an integer d, rotate the array that many steps to the left and return the result.

#### Example

d = 2

$$arr = [1, 2, 3, 4, 5]$$

After 2 rotations, arr' = [3, 4, 5, 1, 2].

#### **Function Description**

Complete the *rotateLeft* function with the following parameters:

- int d: the amount to rotate by
- int arr[n]: the array to rotate

## Returns

• int[n]: the rotated array

# Input Format

The first line contains two space-separated integers that denote n, the number of integers, and d, the number of left rotations to perform.

The second line contains n space-separated integers that describe arr[].

## Constraints

- $1 \le n \le 10^5$
- $1 \le d \le n$
- $1 \le a[i] \le 10^6$

#### Sample Input

## Sample Output

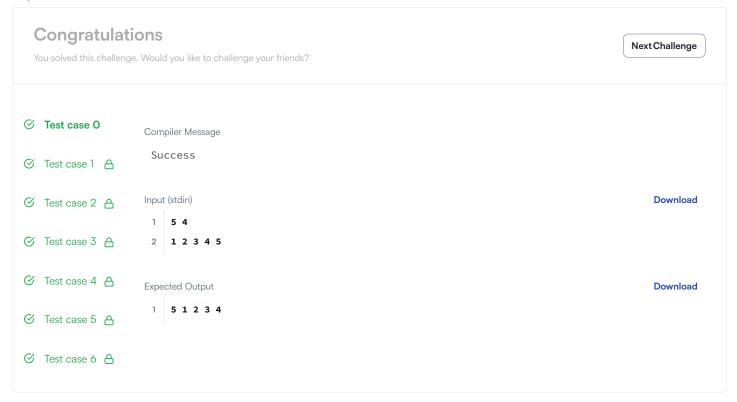
5 1 2 3 4

## Explanation

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

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

```
Language Python 3
                                                            Change Theme
     11
          \# The function is expected to return an <code>INTEGER_ARRAY.</code>
     12
          # The function accepts following parameters:
     13
          # 1. INTEGER d
     14
     15
             2. INTEGER_ARRAY arr
     16
     17
     18
          def rotateLeft(d, arr):
     19
              # Write your code here
              arr.reverse()
     20
     21
               for i in range((n-d)//2):
     22
                   arr[i], arr[n-d-1-i] = arr[n-d-1-i], arr[i]
     23
               for i in range(d//2):
     24
                   arr[n-d+i],arr[n-1-i] = arr[n-1-i],arr[n-d+i]
     25
               return arr
     26
          if __name__ == '__main__':
     27
               fptr = open(os.environ['OUTPUT_PATH'], 'w')
     28
     29
     30
              first_multiple_input = input().rstrip().split()
     31
     32
              n = int(first_multiple_input[0])
     33
     34
              d = int(first_multiple_input[1])
     35
              arr = list(map(int, input().rstrip().split()))
     36
     37
              result = rotateLeft(d, arr)
     39
               fptr.write(' '.join(map(str, result)))
     40
     41
               fptr.write('\n')
     42
               fptr.close()
     43
     44
                                                                                                           Line: 33 Col: 1
EMACS
                                                                                                      Run Code
                                                                                                                  Submit Code
 Test against custom input
 You have earned 20.00 points!
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 87%
                                                91/100
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