

Codility

CodeCheck Report: trainingTM43ZX-KPP

Test Name:

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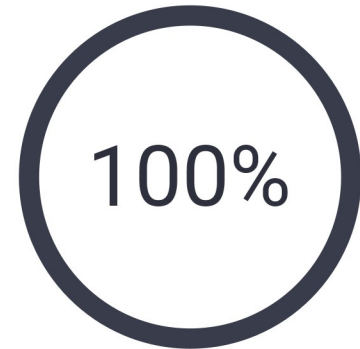
Summary

Timeline

Tasks summary

Task	Time spent	Score
CyclicRotation Java 8	1 min	100%

Total score



Tasks Details

Easy	1. CyclicRotation	Task Score	Correctness	Performance
	Rotate an array to the right by a given number of steps.	100%	100%	Not assessed

Task description

An array A consisting of N integers is given. Rotation of the array means that each element is shifted right by one index, and the last element of the array is moved to the first place. For example, the rotation of array $A = [3, 8, 9, 7, 6]$ is $[6, 3, 8, 9, 7]$ (elements are shifted right by one index and 6 is moved to the first place).

The goal is to rotate array A K times; that is, each element of A will be shifted to the right K times.

Write a function:

```
class Solution { public int[] solution(int[] A, int K); }
```

that, given an array A consisting of N integers and an integer K , returns the array A rotated K times.

For example, given

```
A = [3, 8, 9, 7, 6]
K = 3
```

Solution

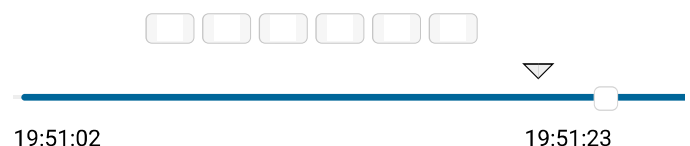
Programming language used: Java 8

Total time used: 1 minutes ?

Effective time used: 1 minutes ?

Notes: not defined yet

Task timeline



Code: 19:51:23 UTC, java,

[show code in pop-up](#)

the function should return [9, 7, 6, 3, 8]. Three rotations were made:

```
[3, 8, 9, 7, 6] -> [6, 3, 8, 9, 7]
[6, 3, 8, 9, 7] -> [7, 6, 3, 8, 9]
[7, 6, 3, 8, 9] -> [9, 7, 6, 3, 8]
```

For another example, given

```
A = [0, 0, 0]
K = 1
```

the function should return [0, 0, 0]

Given

```
A = [1, 2, 3, 4]
K = 4
```

the function should return [1, 2, 3, 4]

Assume that:

- N and K are integers within the range [0..100];
- each element of array A is an integer within the range [-1,000..1,000].

In your solution, focus on **correctness**. The performance of your solution will not be the focus of the assessment.

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final, score: 100

```
1 // you can also use imports, for example:
2 // import java.util.*;
3
4 // you can write to stdout for debugging purposes
5 // System.out.println("this is a debug message")
6
7 class Solution {
8     public int[] solution(int[] A, int K) {
9         // write your code in Java SE 8
10
11         int totalElements = A.length;
12         int[] output = A.clone();
13         int startIndex=0;
14
15         if(totalElements>0) {
16             while (K>=totalElements)
17                 K=K-totalElements;
18         }
19
20         for (int i = 0; i < totalElements; i++) {
21             int newIndex = (startIndex + K) % totalElements;
22
23             if(newIndex>=totalElements)
24                 newIndex = newIndex - totalElements;
25
26             output[newIndex] = A[i];
27         }
28
29         return output;
30     }
31 }
32
33
34 }
```

Analysis summary

The solution obtained perfect score.

Analysis

expand all	Example tests
▶ example	✓ OK
first example test	
▶ example2	✓ OK
second example test	
▶ example3	✓ OK
third example test	
expand all	Correctness tests
▶ extreme_empty	✓ OK
empty array	
▶ single	✓ OK
one element, 0 <= K <= 5	
▶ double	✓ OK
two elements, K <= N	
▶ small1	✓ OK
small functional tests, K < N	
▶ small2	✓ OK

small functional tests, $K \geq N$

- | | | |
|---|---|------|
| ▶ | small_random_all_rotations | ✓ OK |
| | small random sequence, all rotations,
N = 15 | |
| ▶ | medium_random | ✓ OK |
| | medium random sequence, N = 100 | |
| ▶ | maximal | ✓ OK |
| | maximal N and K | |