

Question **1**

Correct

Marked out of 1.00

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Given an array of integers, reverse the given array in place using an index and loop rather than a built-in function.

Example

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

Return the array `[5, 4, 2, 3, 1]` which is the reverse of the input array.

Function Description

Complete the function `reverseArray` in the editor below.

`reverseArray` has the following parameter(s):

`int arr[n]`: an array of integers

Return

`int[n]`: the array in reverse order

Constraints

$1 \leq n \leq 100$

$0 < arr[i] \leq 100$

Input Format For Custom Testing

The first line contains an integer, n , the number of elements in `arr`.

Each line i of the n subsequent lines (where $0 \leq i < n$) contains an integer, `arr[i]`.



Each line i of the n subsequent lines (where $0 \leq i < n$) contains an integer, $arr[i]$.

Sample Case 0

Sample Input For Custom Testing

5

1

3

2

4

5

Sample Output

5

4

2

3

1

Explanation

The input array is $[1, 3, 2, 4, 5]$, so the reverse of the input array is $[5, 4, 2, 3, 1]$.

Sample Case 1

Sample Input For Custom Testing

4

17

10

```
1  /*
2  * Complete the 'reverseArray'
3  *
4  * The function is expected to
5  * The function accepts INTEGER
6  */
7
8  /*
9  * To return the integer array
10 *     - Store the size of the array
11 *     - Allocate the array
12 *
13 * For example,
14 * int* return_integer_array(
15 *     *result_count = 5;
16 *
17 *     static int a[5] = {1,
18 *
19 *     return a;
20 * }
21 *
22 * int* return_integer_array(
23 *     *result_count = 5;
24 *
25 *     int *a = malloc(5 * sizeof(int));
26 *
27 *     for (int i = 0; i < 5; i++)
28 *         *(a + i) = i + 1;
29 *
30 *
31 *     return a;
32 * }
33 *
34 */
35 int* reverseArray(int arr_count,
36 *result_count = arr_count)
37 static int rev[100];
38 int i,j=0;
39 for(i=arr_count-1;i>=0;i--)
40     rev[j++]=arr[i];
41 return rev;
42
```

```
24
25 a = malloc(5 * sizeof(int));
26
27 for (int i = 0; i < 5; i++) {
28     *(a + i) = i + 1;
29 }
30
31 printf("a: ");
32
33
34
35 reverseArray(int arr_count, int *arr)
36 {
37     int count = arr_count;
38     int rev[100];
39     for (int i = count-1; i >= 0; i--) {
40         rev[i] = arr[i];
41     }
42     return rev;
43
44
45
```

Test

```
int arr[] = {1, 3, 2, 4, 5};
int result_count;
int* result = reverseArray(5, arr);
for (int i = 0; i < result_count; i++) {
    printf("%d\n", *(result + i));
}
```

Passed all tests! ✓

```
24
25 f(int));
26
27 } {
28
29
30
31
32
33
34
35 int *arr, int *result_count)
36
37
38
39
40
41
42
43
44
45
```

	Expected	Got	
	5	5	✓
	4	4	
&result_count);	2	2	
i++)	3	3	
i));	1	1	

Passed all tests! ✓

Question **2**

Correct

Marked out of 1.00

[Flag question](#)

An automated cutting machine is used to cut rods into segments. The cutting machine can only hold a rod of *minLength* or more, and it can only make one cut at a time. Given the array *lengths[]* representing the desired lengths of each segment, determine if it is possible to make the necessary cuts using this machine. The rod is marked into lengths already, in the order given.

Example

$$n = 3$$

$$lengths = [4, 3, 2]$$

$$minLength = 7$$

The rod is initially $sum(lengths) = 4 + 3 + 2 = 9$ units long. First cut off the segment of length $4 + 3 = 7$ leaving a rod $9 - 7 = 2$. Then check that the length 7 rod can be cut into

length of the first cut, the remaining piece will be shorter than *minLength*. Because $n - 1 = 2$ cuts cannot be made, the answer is *"Impossible"*.

Function Description

Complete the function *cutThemAll* in the editor below.

cutThemAll has the following parameter(s):

int lengths[n]: the lengths of the segments, in order

int minLength: the minimum length the machine can accept

Returns

string: *"Possible"* if all $n-1$ cuts can be made. Otherwise, return the string *"Impossible"*.

Constraints

- $2 \leq n \leq 10^5$
- $1 \leq t \leq 10^9$
- $1 \leq lengths[i] \leq 10^9$
- The sum of the elements of *lengths* equals the uncut rod length.

Reset answer

```
1  *
2  * Complete the 'cutThemAll'
3  *
4  * The function is expected to
5  * The function accepts follow
6  * 1. LONG_INTEGER_ARRAY lengths
7  * 2. LONG_INTEGER minLength
8  */
9
10 *
11 * To return the string from
12 *
13 * For example,
14 * char* return_string_using_
15 *     static char s[] = "sta
16 *
17 *     return s;
18 * }
19 *
20 * char* return_string_using_
21 *     char* s = malloc(100 *
22 *
23 *     s = "dynamic allocatio
24 *
25 *     return s;
26 * }
27 *
28 */
29 char* cutThemAll(int lengths_
30     int s=0;
31     for(int i=0;i<lengths_cou
32         s+=*(lengths+i);
33     }
34     if(s>=minLength){
35         return "Possible";
36     }else{
37         return "Impossible";
38     }
39 }
40
```



```
21 ar));  
22  
23 g";  
24  
25  
26  
27  
28  
29 g *lengths, long minLength)  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43
```

	Test
✓	long lengths[] = {3, 5, 4, 3}; printf("%s", cutThemAll(4, len
✓	long lengths[] = {5, 6, 2}; printf("%s", cutThemAll(3, len

Passed all tests! ✓