An array is a data structure that stores elements of the same type in a contiguous block of memory. In an array, A, of size N, each memory location has some unique index, i (where.$0 \leq i < N$), that can be referenced as $A[i]$ or A_i.

Your task is to reverse an array of integers.

Note: If you've already solved our C++ domain's Arrays Introduction challenge, you may want to skip this.

Example

$A = [1, 2, 3]$

Return $[3, 2, 1]$.

Function Description

Complete the function *reverseArray* with the following parameter(s):

- $int\ A[n]$: the array to reverse

Returns

- $int[n]$: the reversed array

Congratulations!

You have passed the sample test cases. Click the submit button to run your code against all the test cases.

✅ Sample Test case 0

Input (stdin)   Download

```
1   4
2   1 4 3 2
```

Your Output (stdout)

```
1   2 3 4 1
```

Expected Output   Download

```
1   2 3 4 1
```

Given a 6×6 2D array, arr, an hourglass is a subset of values with indices falling in the following pattern:

```
a b c
  d
e f g
```

There are 16 hourglasses in a 6×6 array. The *hourglass sum* is the sum of the values in an hourglass. Calculate the hourglass sum for every hourglass in arr, then print the *maximum* hourglass sum.

Example

$arr =$

```
-9 -9 -9  1 1 1
 0 -9  0  4 3 2
-9 -9 -9  1 2 3
 0  0  8  6 6 0
 0  0  0 -2 0 0
 0  0  1  2 4 0
```

Congratulations!

You have passed the sample test cases. Click the submit button to run your code against all the test cases.

| ✓ Sample Test case 0 |
| ✓ Sample Test case 1 |
| ✓ Sample Test case 2 |

Input (stdin)   Download

```
1  1 1 1 0 0 0
2  0 1 0 0 0 0
3  1 1 1 0 0 0
4  0 0 2 4 4 0
5  0 0 0 2 0 0
6  0 0 1 2 4 0
```

Your Output (stdout)

```
1  19
```

- Declare a 2-dimensional array, arr, with n empty arrays, all zero-indexed.
- Declare an integer, $lastAnswer$, and initialize it to 0.

You need to process two types of queries:

1. Query: 1 x y
   - Compute $idx = (x \oplus lastAnswer)$.
   - Append the integer y to $arr[idx]$.

2. Query: 2 x y
   - Compute $idx = (x \oplus lastAnswer)$.
   - Set $lastAnswer = arr[idx][y\%size(arr[idx])]$.
   - Store the new value of $lastAnswer$ in an answers array.

Notes:

- $\oplus$ is the bitwise XOR operation, which corresponds to the ^ operator in most languages. Learn more about it on Wikipedia.

- % is the modulo operator.

- Finally, $size(arr[idx])$ is the number of elements in $arr[idx]$.

Function Description

Congratulations!

You have passed the sample test cases. Click the submit button to run your code against all the test cases.

✓ **Sample Test case 0**

Input (stdin)   Download

```
1   2 5
2   1 0 5
3   1 1 7
4   1 0 3
5   2 1 0
6   2 1 1
```

Your Output (stdout)

```
1   7
2   3
```

This challenge is part of a MyCodeSchool tutorial track and is accompanied by a video lesson.

This exercise focuses on traversing a linked list. You are given a pointer to the $head$ node of a linked list. The task is to print the $data$ of each node, one per line. If the head pointer is $null$, indicating the list is empty, nothing should be printed.

Function Description

Complete the $print LinkedList$ function with the following parameter(s):

- $Singly LinkedList Node\ head$: a reference to the head of the list

Print

- For each node, print its $data$ value on a new line (console.log in Javascript).

Input Format

The first line of input contains n, the number of elements in the linked list.

⊘ **Sample Test case 0**

⊘ Sample Test case 1

Input (stdin)   Download

1 **2**

2 **16**

3 **13**

Your Output (stdout)

1 **16**

2 **13**

Expected Output   Download

1 **16**

2 **13**

An array is a data structure that stores elements of the same type in a contiguous block of memory. In an array, A, of size N, each memory location has some unique index, i (where $0 \leq i < N$), that can be referenced as $A[i]$ or A_i.

Your task is to reverse an array of integers.

Note: If you've already solved our C++ domain's Arrays Introduction challenge, you may want to skip this.

Example

$A = [1, 2, 3]$

Return $[3, 2, 1]$.

Function Description

Complete the function $reverseArray$ with the following parameter(s):

- $int\ A[n]$: the array to reverse

Returns

- $int[n]$: the reversed array

Congratulations!

You have passed the sample test cases. Click the submit button to run your code against all the test cases.

⊘ **Sample Test case 0**

Input (stdin)   Download

```
1  4
2  1 4 3 2
```

Your Output (stdout)

```
1  2 3 4 1
```

Expected Output   Download

```
1  2 3 4 1
```