

Note: Try to solve this task in-place (with $O(1)$ additional memory), since this is what you'll be asked to do during an interview.

You are given an $n \times n$ 2D matrix that represents an image. Rotate the image by 90 degrees (clockwise).

Example

For

```
a = [[1, 2, 3],
      [4, 5, 6],
      [7, 8, 9]]
```

the output should be

```
rotateImage(a) =
  [[7, 4, 1],
   [8, 5, 2],
   [9, 6, 3]]
```

Input/Output

- [execution time limit] 20 seconds (swift)
- [input] array.array.integer a

Guaranteed constraints:

```
1 ≤ a.length ≤ 100 ,
a[i].length = a.length ,
1 ≤ a[i][j] ≤ 104 .
```

- [output] array.array.integer

[Swift3] Syntax Tips

```
// Prints help message to the console
// Returns a string
func helloWorld(name: String) -> String {
    print("This prints to the console when you Run Tests");
    return "Hello, " + name;
}
```