

1. Maximum Product of Two Elements in an Array.

Given the array of integers `nums`, you will choose two different indices `i` and `j` of that array. Return the maximum value of $(\text{nums}[i]-1) * (\text{nums}[j]-1)$.

Example 1: Input: `nums = [3,4,5,2]` Output: 12

Explanation: If you choose the indices `i=1` and `j=2` (indexed from 0), you will get the maximum value, that is, $(\text{nums}[1]-1) * (\text{nums}[2]-1) = (4-1) * (5-1) = 3 * 4 = 12$.

Example 2: Input: `nums = [1,5,4,5]` Output: 16

Explanation: Choosing the indices `i=1` and `j=3` (indexed from 0), you will get the maximum value of $(5-1) * (5-1) = 16$.

Example 3: Input: `nums = [3,7]` Output: 12

2. Minimum Size Subarray Sum.

Given an array of positive integers `nums` and a positive integer `target`, return the minimal length of a subarray

whose sum is greater than or equal to `target`. If there is no such subarray, return 0 instead.

Example 1: Input: `target = 7, nums = [2,3,1,2,4,3]` Output: 2

Explanation: The subarray `[4,3]` has the minimal length under the problem constraint.

Example 2: Input: `target = 4, nums = [1,4,4]` Output: 1

Example 3: Input: `target = 11, nums = [1,1,1,1,1,1,1,1]` Output: 0

3. Minimum Window Substring.

Given two strings `s` and `t` of lengths `m` and `n` respectively, return the minimum window substring

of `s` such that every character in `t` (including duplicates) is included in the window. If there is no such substring, return the empty string `""`.

The testcases will be generated such that the answer is unique.

Example 1: Input: `s = "ADOBECODEBANC", t = "ABC"` Output: "BANC"

Explanation: The minimum window substring "BANC" includes 'A', 'B', and 'C' from string `t`.

Example 2: Input: `s = "a", t = "a"` Output: "a"

Explanation: The entire string `s` is the minimum window.

Example 3: Input: `s = "a", t = "aa"` Output: ""

Explanation: Both 'a's from `t` must be included in the window.

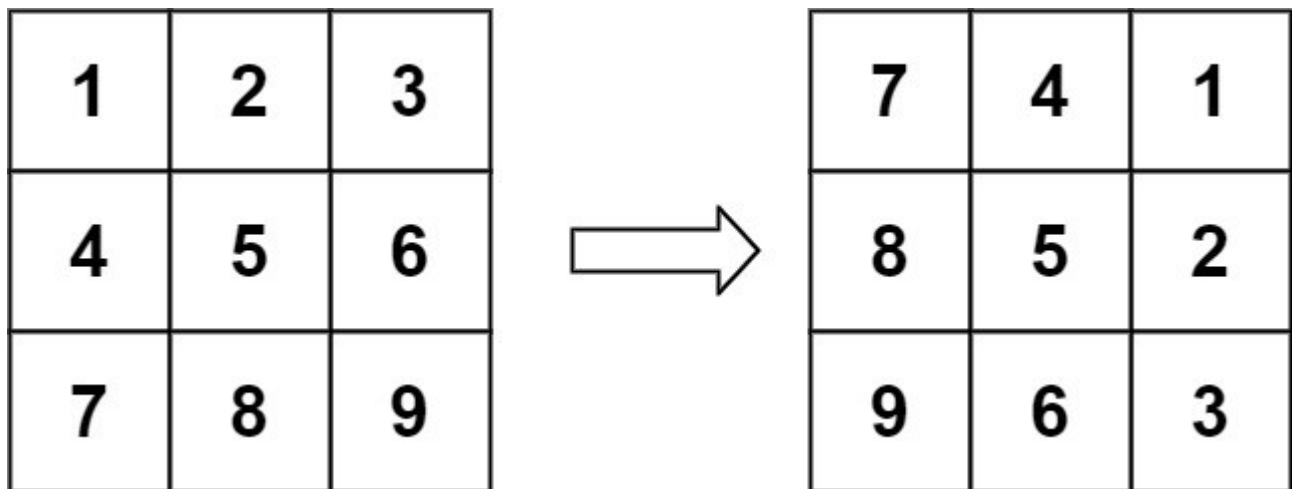
Since the largest window of `s` only has one 'a', return empty string.

4. Rotate Image.

You are given an $n \times n$ 2D matrix representing an image, rotate the image by **90** degrees (clockwise).

You have to rotate the image **in-place**, which means you have to modify the input 2D matrix directly. **DO NOT** allocate another 2D matrix and do the rotation.

Example 1:

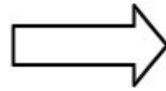


Input: matrix = [[1,2,3],[4,5,6],[7,8,9]]

Output: [[7,4,1],[8,5,2],[9,6,3]]

Example 2:

5	1	9	11
2	4	8	10
13	3	6	7
15	14	12	16



15	13	2	5
14	3	4	1
12	6	8	9
16	7	10	11

Input: matrix = [[5,1,9,11],[2,4,8,10],[13,3,6,7],[15,14,12,16]]

Output: [[15,13,2,5],[14,3,4,1],[12,6,8,9],[16,7,10,11]]