

1690. Maximum Length of Subarray With Positive Product

Difficulty : Medium

<https://leetcode.com/problems/maximum-length-of-subarray-with-positive-product>

Given an array of integers `nums`, find the maximum length of a subarray where the product of all its elements is positive.

A subarray of an array is a consecutive sequence of zero or more values taken out of that array.

Return *the maximum length of a subarray with positive product*.

Example 1:

Input: `nums = [1,-2,-3,4]`

Output: 4

Explanation: The array `nums` already has a positive product of 24.

Example 2:

Input: `nums = [0,1,-2,-3,-4]`

Output: 3

Explanation: The longest subarray with positive product is `[1,-2,-3]` which has a product of 6.

Notice that we cannot include 0 in the subarray since that'll make the product 0 which is not positive.

Example 3:

Input: `nums = [-1,-2,-3,0,1]`

Output: 2

Explanation: The longest subarray with positive product is `[-1,-2]` or `[-2,-3]`.

Constraints:

- $1 \leq \text{nums.length} \leq 10^5$
- $-10^9 \leq \text{nums}[i] \leq 10^9$