Maximum Product Subarray

Given an integer array nums, find a

subarray

that has the largest product, and return *the product*.

The test cases are generated so that the answer will fit in a **32-bit** integer.

Example 1:

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

Output: 6

Explanation: [2,3] has the largest product 6.

Example 2:

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

Output: 0

Explanation: The result cannot be 2, because [-2,-1] is not a subarray.

Constraints:

- 1 <= nums.length <= $2 * 10^4$
- -10 <= nums[i] <= 10
- The product of any prefix or suffix of nums is **guaranteed** to fit in a **32-bit** integer.