

152. 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:

- $1 \leq \text{nums.length} \leq 2 * 10^4$
- $-10 \leq \text{nums}[i] \leq 10$
- The product of any prefix or suffix of `nums` is guaranteed to fit in a 32-bit integer.