1822. Sign of the Product of an Array

Companies

There is a function signFunc(x) that returns:

* 1 if x is positive.
* -1 if x is negative.
* 0 if x is equal to 0.

You are given an integer array nums. Let product be the product of all values in the array nums.

Return signFunc(product).

**Example 1:**

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

**Output:** 1

**Explanation:** The product of all values in the array is 144, and signFunc(144) = 1

**Example 2:**

**Input:** nums = [1,5,0,2,-3]

**Output:** 0

**Explanation:** The product of all values in the array is 0, and signFunc(0) = 0

**Example 3:**

**Input:** nums = [-1,1,-1,1,-1]

**Output:** -1

**Explanation:** The product of all values in the array is -1, and signFunc(-1) = -1

**Constraints:**

* 1 <= nums.length <= 1000
* -100 <= nums[i] <= 100

Solution

public class Solution {

public int ArraySign(int[] nums) {

BigInteger product = 1;

for(int i = 0; i < nums.Length; i++){

product = product \* nums[i];

}

if(product >= 1){

return 1;

}

else if(product == 0){

return 0;

}

else{

return -1;

}

}

}

Alternative Solution with simple Logic

public class Solution {

public int ArraySign(int[] nums) {

int neg = 0;

foreach(var num in nums)

{

if(num == 0) return 0;

if(num < 0) neg++;

}

return (neg%2 == 0) ? 1 : -1;

}

}