**[Largest Positive Integer That Exists With Its Negative](https://leetcode.com/problems/largest-positive-integer-that-exists-with-its-negative/)**

Given an integer array nums that **does not contain** any zeros, find **the largest positive** integer k such that -k also exists in the array.

Return *the positive integer*k. If there is no such integer, return -1.

**Example 1:**

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

**Output:** 3

**Explanation:** 3 is the only valid k we can find in the array.

**Example 2:**

**Input:** nums = [-1,10,6,7,-7,1]

**Output:** 7

**Explanation:** Both 1 and 7 have their corresponding negative values in the array. 7 has a larger value.

**Example 3:**

**Input:** nums = [-10,8,6,7,-2,-3]

**Output:** -1

**Explanation:** There is no a single valid k, we return -1.

**Constraints:**

* 1 <= nums.length <= 1000
* -1000 <= nums[i] <= 1000
* nums[i] != 0

class Solution {

public:

int findMaxK(std::vector<int>& nums) {

std::sort(nums.begin(), nums.end());

int n = nums.size();

for (int i = n-1; i >= 0; i--) {

if (nums[i] > 0 && std::binary\_search(nums.begin(), nums.end(), -nums[i])) {

return nums[i];

}

}

return -1; // If no such pair found

}

};

Link : <https://leetcode.com/problems/largest-positive-integer-that-exists-with-its-negative/?envType=daily-question&envId=2024-05-02>