Problem 1979: Find Greatest Common Divisor of Array

Problem Information

Difficulty: Easy
Acceptance Rate: 79.36%
Paid Only: No
Tags: Array, Math, Number Theory

Problem Description

Given an integer array `nums`, return****_the**greatest common divisor** of the smallest number and largest number in _`nums`.

The **greatest common divisor** of two numbers is the largest positive integer that evenly divides both numbers.

Example 1:

Input: nums = [2,5,6,9,10] **Output:** 2 **Explanation:** The smallest number in nums is 2. The largest number in nums is 10. The greatest common divisor of 2 and 10 is 2.

Example 2:

Input: nums = [7,5,6,8,3] **Output:** 1 **Explanation:** The smallest number in nums is 3. The largest number in nums is 8. The greatest common divisor of 3 and 8 is 1.

Example 3:

Input: nums = [3,3] **Output:** 3 **Explanation:** The smallest number in nums is 3. The largest number in nums is 3. The greatest common divisor of 3 and 3 is 3.

Constraints:

* `2 <= nums.length <= 1000` * `1 <= nums[i] <= 1000`

Code Snippets

C++:

```
class Solution {
public:
int findGCD(vector<int>& nums) {

}
};
```

Java:

```
class Solution {
public int findGCD(int[] nums) {

}
}
```

Python3:

```
class Solution:
def findGCD(self, nums: List[int]) -> int:
```