# Problem 3024: Type of Triangle

## Problem Information

**Difficulty:** Easy
**Acceptance Rate:** 44.26%
**Paid Only:** No
**Tags:** Array, Math, Sorting

## Problem Description

You are given a **0-indexed** integer array `nums` of size `3` which can form the sides of a triangle.

* A triangle is called **equilateral** if it has all sides of equal length. * A triangle is called **isosceles** if it has exactly two sides of equal length. * A triangle is called **scalene** if all its sides are of different lengths.

Return _a string representing_ _the type of triangle that can be formed_ _or_ `"none"` _if it**cannot** form a triangle._

**Example 1:**

**Input:** nums = [3,3,3] **Output:** "equilateral" **Explanation:** Since all the sides are of equal length, therefore, it will form an equilateral triangle.

**Example 2:**

**Input:** nums = [3,4,5] **Output:** "scalene" **Explanation:** nums[0] + nums[1] = 3 + 4 = 7, which is greater than nums[2] = 5. nums[0] + nums[2] = 3 + 5 = 8, which is greater than nums[1] = 4. nums[1] + nums[2] = 4 + 5 = 9, which is greater than nums[0] = 3. Since the sum of the two sides is greater than the third side for all three cases, therefore, it can form a triangle. As all the sides are of different lengths, it will form a scalene triangle.

**Constraints:**

* `nums.length == 3` * `1 <= nums[i] <= 100`

## Code Snippets

### C++:

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

}
};
```

### Java:

```
class Solution {
public String triangleType(int[] nums) {

}
}
```

### Python3:

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