

976. Largest Perimeter Triangle

Given an integer array `nums`, return *the largest perimeter of a triangle with a non-zero area, formed from three of these lengths*. If it is impossible to form any triangle of a non-zero area, return `0`.

Example 1:

Input: `nums = [2,1,2]`

Output: `5`

Example 2:

Input: `nums = [1,2,1]`

Output: `0`

Example 3:

Input: `nums = [3,2,3,4]`

Output: `10`

Example 4:

Input: `nums = [3,6,2,3]`

Output: `8`

Constraints:

- `3 <= nums.length <= 104`
- `1 <= nums[i] <= 106`

```
class Solution:
    def largestPerimeter(self, nums: List[int]) -> int:
        ans = 0
        n = len(nums)
        nums.sort(reverse=True)
        for i in range(len(nums)-2):
            x = nums[i]
            j = i+1
            k = j+1
            while k<n:
                if x+nums[j]>nums[k]:
                    return x+nums[j]+nums[k]
```

```
        k+=1
    return ans
```

```
class Solution(object):
    def largestPerimeter(self, A):
        A.sort()
        for i in xrange(len(A) - 3, -1, -1):
            if A[i] + A[i+1] > A[i+2]:
                return A[i] + A[i+1] + A[i+2]
        return 0
```