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Given an array of integers `nums` and an integer `threshold`, we will choose a positive integer `divisor`, divide all the array by it, and sum the division's result. Find the **smallest** `divisor` such that the result mentioned above is less than or equal to `threshold`.

Each result of the division is rounded to the nearest integer greater than or equal to that element. (For example: $7/3 = 3$ and $10/2 = 5$).

It is guaranteed that there will be an answer.

Example 1:

Input: `nums = [1,2,5,9]`, `threshold = 6`

Output: 5

Explanation: We can get a sum to 17 ($1+2+5+9$) if the divisor is 1.

If the divisor is 4 we can get a sum of 7 ($1+1+2+3$)

and if the divisor is 5 the sum will be 5 ($1+1+1+2$).

Example 2:

Input: `nums = [44,22,33,11,1]`, `threshold = 5`

Output: 44

Example 3:

Input: `nums = [21212,10101,12121]`, `threshold = 1000000`

Output: 1

Example 4:

Input: `nums = [2,3,5,7,11]`, `threshold = 11`

Output: 3

```
def smallestDivisor(self, nums: List[int], threshold: int) -> int:
    left = 1
    right = max(nums)
    ans = -1
    while left <= right:
        mid = (left + right) // 2
```

```
        if self.is_valid(nums, threshold, mid):
            ans = mid
            right = mid-1
        else:
            left = mid+1
    return ans
```

```
def is_valid(self, nums, threshold, mid):
    sum = 0
    for ele in nums:
        temp = ele%mid
        if temp!=0:
            sum = sum+(ele//mid)+1
        else:
            sum = sum+(ele//mid)
    if sum>threshold:
        return False
    return True
```