

1283. Find the Smallest Divisor Given a Threshold

Description

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 $10/2 = 5$).

The test cases are generated so 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

Constraints:

- $1 \leq \text{nums.length} \leq 5 \times 10^4$
- $1 \leq \text{nums}[i] \leq 10^6$
- $\text{nums.length} \leq \text{threshold} \leq 10^6$

