# 1819. Number of Different Subsequences GCDs

# Description

You are given an array nums that consists of positive integers.

The GCD of a sequence of numbers is defined as the greatest integer that divides all the numbers in the sequence evenly.

• For example, the GCD of the sequence [4,6,16] is 2.

A subsequence of an array is a sequence that can be formed by removing some elements (possibly none) of the array.

• For example, [2,5,10] is a subsequence of [1,2,1, 2,4,1, 5, 10].

Return the number of different GCDs among all non-empty subsequences of nums.

## Example 1:

Subsequence	GCD
[6]	6
[10]	10
[3]	3
[6,10]	2
[6,3]	3
[10,3]	1
[6,10,3]	1

```
Input: nums = [6,10,3]
Output: 5
Explanation: The figure shows all the non-empty subsequences and their GCDs.
The different GCDs are 6, 10, 3, 2, and 1.
```

## Example 2:

```
Input: nums = [5,15,40,5,6]
Output: 7
```

## **Constraints:**

- 1 <= nums.length <=  $10^{5}$
- $1 \leftarrow nums[i] \leftarrow 2 * 10^5$