

2696. The Number of Beautiful Subsets

Difficulty : Medium

<https://leetcode.com/problems/the-number-of-beautiful-subsets>

You are given an array `nums` of positive integers and a **positive** integer `k`.

A subset of `nums` is **beautiful** if it does not contain two integers with an absolute difference equal to `k`.

Return *the number of **non-empty beautiful** subsets of the array* `nums`.

A **subset** of `nums` is an array that can be obtained by deleting some (possibly none) elements from `nums`. Two subsets are different if and only if the chosen indices to delete are different.

Example 1:

Input: `nums = [2,4,6], k = 2`

Output: 4

Explanation: The beautiful subsets of the array `nums` are: `[2]`, `[4]`, `[6]`, `[2, 6]`.
It can be proved that there are only 4 beautiful subsets in the array `[2,4,6]`.

Example 2:

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

Output: 1

Explanation: The beautiful subset of the array `nums` is `[1]`.

It can be proved that there is only 1 beautiful subset in the array `[1]`.

Constraints:

- `1 <= nums.length <= 20`
- `1 <= nums[i], k <= 1000`