1498. Number of Subsequences That Satisfy the Given Sum Condition

Description

You are given an array of integers `nums` and an integer `target`.

Return *the number of* ***non-empty*** *subsequences of* `nums` *such that the sum of the minimum and maximum element on it is less or equal to* `target`. Since the answer may be too large, return it **modulo** `10^9 + 7`.

Example 1:

```
Input: nums = [3,5,6,7], target = 9
Output: 4
Explanation: There are 4 subsequences that satisfy the condition.
[3] -> Min value + max value <= target (3 + 3 <= 9)
[3,5] -> (3 + 5 <= 9)
[3,5,6] -> (3 + 6 <= 9)
[3,6] -> (3 + 6 <= 9)
```

Example 2:

```
Input: nums = [3,3,6,8], target = 10
Output: 6
Explanation: There are 6 subsequences that satisfy the condition. (nums can have repeated numbers).
[3] , [3] , [3,3], [3,6] , [3,6] , [3,3,6]
```

Example 3:

```
Input: nums = [2,3,3,4,6,7], target = 12
Output: 61
Explanation: There are 63 non-empty subsequences, two of them do not satisfy the condition ([6,7], [7]).
Number of valid subsequences (63 - 2 = 61).
```

Constraints:

- `1 <= nums.length <= 10^5`
- `1 <= nums[i] <= 10^6`
- `1 <= target <= 10^6`