

2834. Find the Minimum Possible Sum of a Beautiful Array

Description

You are given positive integers `n` and `target`.

An array `nums` is **beautiful** if it meets the following conditions:

- `nums.length == n`.
- `nums` consists of pairwise **distinct positive** integers.
- There doesn't exist two **distinct** indices, `i` and `j`, in the range `[0, n - 1]`, such that `nums[i] + nums[j] == target`.

Return *the minimum possible sum that a beautiful array could have modulo* `109 + 7`.

Example 1:

Input: `n = 2, target = 3`
Output: `4`
Explanation: We can see that `nums = [1,3]` is beautiful.

- The array `nums` has length `n = 2`.
- The array `nums` consists of pairwise distinct positive integers.
- There doesn't exist two distinct indices, `i` and `j`, with `nums[i] + nums[j] == 3`.

It can be proven that 4 is the minimum possible sum that a beautiful array could have.

Example 2:

Input: `n = 3, target = 3`
Output: `8`
Explanation: We can see that `nums = [1,3,4]` is beautiful.

- The array `nums` has length `n = 3`.
- The array `nums` consists of pairwise distinct positive integers.
- There doesn't exist two distinct indices, `i` and `j`, with `nums[i] + nums[j] == 3`.

It can be proven that 8 is the minimum possible sum that a beautiful array could have.

Example 3:

Input: `n = 1, target = 1`
Output: `1`
Explanation: We can see, that `nums = [1]` is beautiful.

Constraints:

- `1 <= n <= 109`
- `1 <= target <= 109`

