891. Sum of Subsequence Widths

Description

The **width** of a sequence is the difference between the maximum and minimum elements in the sequence.

Given an array of integers `nums`, return *the sum of the **widths** of all the non-empty **subsequences** of* `nums`. Since the answer may be very large, return it **modulo** $10^9 + 7$.

A **subsequence** is a sequence that can be derived from an array by deleting some or no elements without changing the order of the remaining elements. For example, `[3,6,2,7]` is a subsequence of the array `[0,3,1,6,2,2,7]`.

Example 1:

```
Input: nums = [2,1,3]
Output: 6
Explanation: The subsequences are [1], [2], [3], [2,1], [2,3], [1,3], [2,1,3].
The corresponding widths are 0, 0, 0, 1, 1, 2, 2.
The sum of these widths is 6.
```

Example 2:

```
Input: nums = [2]
Output: 0
```

Constraints:

- $1 \le nums.length \le 10^5$
- $1 \le nums[i] \le 10^5$