907. Sum of Subarray Minimums

Description

Given an array of integers arr, find the sum of min(b), where b ranges over every (contiguous) subarray of arr. Since the answer may be large, return the answer modulo 109 + 7.

Example 1:

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Input: arr = [3,1,2,4]
Output: 17
Explanation:
Subarrays are [3], [1], [2], [4], [3,1], [1,2], [2,4], [3,1,2], [1,2,4], [3,1,2,4].
Minimums are 3, 1, 2, 4, 1, 1, 2, 1, 1, 1.
Sum is 17.
```

Example 2:

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Input: arr = [11,81,94,43,3]
Output: 444
```

Constraints:

- 1 <= arr.length <= 3 * 10 4
- 1 <= arr[i] <= 3 * 10 ⁴