Bitwise ORs of Subarrays

Given an integer array arr, return *the number of distinct bitwise ORs of all the non-empty subarrays of* arr.

The bitwise OR of a subarray is the bitwise OR of each integer in the subarray. The bitwise OR of a subarray of one integer is that integer.

A **subarray** is a contiguous non-empty sequence of elements within an array.

Example 1:

Input: arr = [0]

Output: 1

Explanation: There is only one possible result: 0.

Example 2:

Input: arr = [1,1,2]

Output: 3

Explanation: The possible subarrays are [1], [1], [2], [1, 1], [1, 2], [1, 1, 2].

These yield the results 1, 1, 2, 1, 3, 3.

There are 3 unique values, so the answer is 3.

Example 3:

Input: arr = [1,2,4]

Output: 6

Explanation: The possible results are 1, 2, 3, 4, 6, and 7.

Constraints:

- 1 <= arr.length <= 5 * 10^4
- 0 <= arr[i] <= 10^9