OR SUM

Given two arrays **A[ ]** and **B[ ]** of size **N** and **M** respectively. You have to find sum of bitwise **OR** of all pairs of **A*B** *i.e.* pairing every element of **A[ ]** with every element of **B[ ]**, there will be exactly **N*M** pairs.
As answer can be large you have to find the answer modulo $10^9 + 7$.

Example 1:

Input:
N = 3
M = 2
A[] = {5, 7, 1}
B[] = {2, 3}
Output:
34
Explanation: All possible pairs and their contribution to answer:
(5, 2) -> 7
(5, 3) -> 7
(7, 2) -> 7
(7, 3) -> 7
(1, 2) -> 3
(1, 3) -> 3
Answer = 7+7+7+7+3+3 = 34

Your Task:
You don't need to read input or print anything. Your task is to complete the function **orSum( )** which takes size of first array **N**, first array **A[ ],** size of second array **M** and second array **B[ ]** as input parameters and returns the answer - an integer.

Expected Time Complexity: O((N + M) * Log(max(integers in A[ ] and B[ ])))
Expected Auxiliary Space: O(1)

Constraints:
$1 \leq N, M \leq 2*10^5$
$0 \leq A[i], B[i] < 2^{30}$