2838. Maximum Coins Heroes Can Collect

Description

There is a battle and in heroes are trying to defeat im monsters. You are given two 1-indexed arrays of positive integers heroes and monsters of length in and im, respectively. heroes [i] is the power of i th hero, and monsters [i] is the power of i th monster.

The i th hero can defeat the j th monster if monsters [j] <= heroes [i].

You are also given a 1-indexed array coins of length im consisting of positive integers. coins [i] is the number of coins that each hero earns after defeating the i th monster.

Return an array ans of length n where ans[i] is the maximum number of coins that the i th hero can collect from this battle.

Notes

- The health of a hero doesn't get reduced after defeating a monster.
- Multiple heroes can defeat a monster, but each monster can be defeated by a given hero only once.

Example 1:

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Input: heroes = [1,4,2], monsters = [1,1,5,2,3], coins = [2,3,4,5,6]
Output: [5,16,10]
Explanation: For each hero, we list the index of all the monsters he can defeat:
1 st hero: [1,2] since the power of this hero is 1 and monsters[1], monsters[2] <= 1. So this hero collects coins[1] + coins[2] = 5 coins.
2 nd hero: [1,2,4,5] since the power of this hero is 4 and monsters[1], monsters[2], monsters[4], monsters[5] <= 4. So this hero collects coins[1] + coins[2] + coins[4] + coins[5] = 16 coins.
3 rd hero: [1,2,4] since the power of this hero is 2 and monsters[1], monsters[2], monsters[4] <= 2. So this hero collects coins[1] + coins[4] = 10 coins.
So the answer would be [5,16,10].</pre>
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Example 2:

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Input: heroes = [5], monsters = [2,3,1,2], coins = [10,6,5,2]
Output: [23]
Explanation: This hero can defeat all the monsters since monsters[i] <= 5. So he collects all of the coins: coins[1] + coins[2] + coins[3] + coins[4] = 23, and the answer would be [23].</pre>
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Example 3:

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Input: heroes = [4,4], monsters = [5,7,8], coins = [1,1,1]
Output: [0,0]
Explanation: In this example, no hero can defeat a monster. So the answer would be [0,0],
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Constraints:

- 1 <= n == heroes.length <= 10^{5}
- 1 <= m == monsters.length <= 10^{5}
- coins.length == m
- 1 <= heroes[i], monsters[i], coins[i] <= 10 9