

# Algo Problem: Total weight of same items

You are given two 2D integer arrays, items1 and items2, representing two sets of items. Each array items has the following properties:

- items[i] = [value<sub>i</sub>, weight<sub>i</sub>] where value<sub>i</sub> represents the **value** and weight<sub>i</sub> represents the **weight** of the i<sup>th</sup> item.

- The value of each item in items is **unique**.

Return a 2D integer array return where return[i] = [value<sub>i</sub>, weight<sub>i</sub>], with weight<sub>i</sub> being the **sum of weights** of all items with value value<sub>i</sub>.

**Note:** return should be returned in **ascending** order by value.



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## Example 1:

**Input:** items1 = [[1,1],[4,5],[3,8]], items2 = [[3,1],[1,5]]

**Output:** [[1,6],[3,9],[4,5]]

## Explanation:

The item with value = 1 occurs in items1 with weight = 1 and in items2 with weight = 5, total weight =  $1 + 5 = 6$ .

The item with value = 3 occurs in items1 with weight = 8 and in items2 with weight = 1, total weight =  $8 + 1 = 9$ .

The item with value = 4 occurs in items1 with weight = 5, total weight = 5.

Therefore, we return [[1,6],[3,9],[4,5]].



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## Example 2:

**Input:** items1 = [[1,1],[3,2],[2,3]], items2 = [[2,1],[3,2],[1,3]]

**Output:** [[1,4],[2,4],[3,4]]

## Explanation:

The item with value = 1 occurs in items1 with weight = 1 and in items2 with weight = 3, total weight =  $1 + 3 = 4$ .

The item with value = 2 occurs in items1 with weight = 3 and in items2 with weight = 1, total weight =  $3 + 1 = 4$ .

The item with value = 3 occurs in items1 with weight = 2 and in items2 with weight = 2, total weight =  $2 + 2 = 4$ .

Therefore, we return [[1,4],[2,4],[3,4]].



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## Example 3:

**Input:** items1 = [[1,3],[2,2]], items2 = [[7,1],[2,2],[1,4]]

**Output:** [[1,7],[2,4],[7,1]]

## Explanation:

The item with value = 1 occurs in items1 with weight = 3 and in items2 with weight = 4, total weight =  $3 + 4 = 7$ .

The item with value = 2 occurs in items1 with weight = 2 and in items2 with weight = 2, total weight =  $2 + 2 = 4$ .

The item with value = 7 occurs in items2 with weight = 1, total weight = 1. Therefore, we return

[[1,7],[2,4],[7,1]].

