You are given two integer arrays **nums1** and **nums2** sorted in ascending order and an integer **k**.

Define a pair **(u,v)** which consists of one element from the first array and one element from the second array.

Find the k pairs **(u1,v1),(u2,v2) ...(uk,vk)** with the smallest sums.

**Example 1:**

**Input:** nums1 = [1,7,11], nums2 = [2,4,6], k = 3

**Output:** [[1,2],[1,4],[1,6]]

**Explanation:** The first 3 pairs are returned from the sequence:

  [1,2],[1,4],[1,6],[7,2],[7,4],[11,2],[7,6],[11,4],[11,6]

**Example 2:**

**Input:** nums1 = [1,1,2], nums2 = [1,2,3], k = 2

**Output:** [1,1],[1,1]

**Explanation:** The first 2 pairs are returned from the sequence:

  [1,1],[1,1],[1,2],[2,1],[1,2],[2,2],[1,3],[1,3],[2,3]

**Example 3:**

**Input:** nums1 = [1,2], nums2 = [3], k = 3

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

**Explanation:** All possible pairs are returned from the sequence: [1,3],[2,3]