

5403. Find the Kth Smallest Sum of a Matrix With Sorted Rows

ons (/contest/weekly-contest-187/problems/find-the-kth-smallest-sum-of-a-matrix-with-sorted-rows/submissions/)

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You are given an $m \times n$ matrix, `mat`, and an integer `k`, which has its rows sorted in non-decreasing order.

You are allowed to choose exactly 1 element from each row to form an array. Return the Kth **smallest** array sum among all possible arrays.

Example 1:

Input: `mat = [[1,3,11],[2,4,6]]`, `k = 5`

Output: 7

Explanation: Choosing one element from each row, the first 5 smallest sums are: [1,2], [1,4], [3,2], [3,4], [1,6]. Where the 5th sum is 7.

User Accepted: 0

User Tried: 0

Total Accepted: 0

Total Submissions: 0

Difficulty: Hard

Example 2:

Input: `mat = [[1,3,11],[2,4,6]]`, `k = 9`

Output: 17

Example 3:

Input: `mat = [[1,10,10],[1,4,5],[2,3,6]]`, `k = 7`

Output: 9

Explanation: Choosing one element from each row, the first 7 smallest sums are: [1,1,2], [1,1,3], [1,4,2], [1,4,3], [1,1,6], [1,5,2], [1,5,3]. Where the 7th sum is 9.

Example 4:

Input: `mat = [[1,1,10],[2,2,9]]`, `k = 7`

Output: 12

Constraints:

- `m == mat.length`
- `n == mat.length[i]`
- `1 <= m, n <= 40`
- `1 <= k <= min(200, n ^ m)`
- `1 <= mat[i][j] <= 5000`
- `mat[i]` is a non decreasing array.

JavaScript



```
1 ▾ /**
2   * @param {number[][]} mat
3   * @param {number} k
4   * @return {number}
5   */
6 ▾ var kthSmallest = function(mat, k) {
7
8   };
```

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