6231. Total Cost to Hire K Workers

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User Accepted:	0
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Total Accepted:	0
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Difficulty:	Medium

You are given a **0-indexed** integer array `costs` where `costs[i]` is the cost of hiring the `i`th worker.

You are also given two integers `k` and `candidates`. We want to hire exactly `k` workers according to the following rules:

- You will run `k` sessions and hire exactly one worker in each session.
- In each hiring session, choose the worker with the lowest cost from either the first `candidates` workers or the last `candidates` workers. Break the tie by the smallest index.
  - For example, if `costs = [3,2,7,7,1,2]` and `candidates = 2`, then in the first hiring session, we will choose the `4`th worker because they have the lowest cost `[3,2,7,7,1,2]`.
  - In the second hiring session, we will choose `1`st worker because they have the same lowest cost as `4`th worker but they have the smallest index `[3,2,7,7,2]`. Please note that the indexing may be changed in the process.
- If there are fewer than candidates workers remaining, choose the worker with the lowest cost among them. Break the tie by the smallest index.
- A worker can only be chosen once.

Return *the total cost to hire exactly* `k` *workers.*

Example 1:

```
Input: costs = [17,12,10,2,7,2,11,20,8], k = 3, candidates = 4
Output: 11
Explanation: We hire 3 workers in total. The total cost is initially 0.
- In the first hiring round we choose the worker from [17,12,10,2,7,2,11,20,8]. The lowest cost is 2, and we break the tie by t
- In the second hiring round we choose the worker from [17,12,10,7,2,11,20,8]. The lowest cost is 2 (index 4). The total cost =
- In the third hiring round we choose the worker from [17,12,10,7,11,20,8]. The lowest cost is 7 (index 3). The total cost = 4
The total hiring cost is 11.
```

Example 2:

```
Input: costs = [1,2,4,1], k = 3, candidates = 3
Output: 4
Explanation: We hire 3 workers in total. The total cost is initially 0.
- In the first hiring round we choose the worker from [1,2,4,1]. The lowest cost is 1, and we break the tie by the smallest ind
- In the second hiring round we choose the worker from [2,4,1]. The lowest cost is 1 (index 2). The total cost = 1 + 1 = 2.
- In the third hiring round there are less than three candidates. We choose the worker from the remaining workers [2,4]. The lo
The total hiring cost is 4.
```

Constraints:

- `1 <= costs.length <=` 10^5
- `1 <= costs[i] <=` 10^5
- `1 <= k, candidates <= costs.length`

JavaScript

```
const totalCost = (a, k, m) => {
    let pq = new MinPriorityQueue({
        compare: (x, y) => {
            if (x[0] != y[0]) return x[0] - y[0];
            return x[1] - y[1];
        }
    });
    let n = a.length, l = 0, r = n - 1, res = 0;
    for (let i = 0; i < m; i++) {
        if (l <= r) {
            pq.enqueue([a[l], l]);
            l++;
        }
    }
    for (let i = 0; i < m; i++) {
        if (l <= r) {
            pq.enqueue([a[r], r]);
            r--;
        }
    }
    for (let i = 0; i < k; i++) {
        let cur = pq.dequeue();
        res += cur[0];
        if (cur[1] < l && l <= r) {
            pq.enqueue([a[l], l]);
            l++;
        } else if (cur[1] > r && l <= r) {
            pq.enqueue([a[r], r]);
            r--;
        }
    }
    return res;
};
```

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