You are given a **0-indexed** integer array costs where costs[i] is the cost of hiring the ith 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 4th worker because they have the lowest cost [3,2,7,7,**1**,2].
  + In the second hiring session, we will choose 1st worker because they have the same lowest cost as 4th 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 the smallest index, which is 3. The total cost = 0 + 2 = 2.  
- 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 = 2 + 2 = 4.  
- 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 + 7 = 11. Notice that the worker with index 3 was common in the first and last four workers.  
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 index, which is 0. The total cost = 0 + 1 = 1. Notice that workers with index 1 and 2 are common in the first and last 3 workers.  
- 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 lowest cost is 2 (index 0). The total cost = 2 + 2 = 4.  
The total hiring cost is 4.

**Constraints:**

* 1 <= costs.length <= 105
* 1 <= costs[i] <= 105
* 1 <= k, candidates <= costs.length