

6364. Mice and Cheese

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There are two mice and n different types of cheese, each type of cheese should be eaten by exactly one mouse.

A point of the cheese with index i (**0-indexed**) is:

- $reward1[i]$ if the first mouse eats it.
- $reward2[i]$ if the second mouse eats it.

You are given a positive integer array `reward1`, a positive integer array `reward2`, and a non-negative integer k .

Return **the maximum** points the mice can achieve if the first mouse eats exactly k types of cheese.

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

Example 1:

Input: `reward1 = [1,1,3,4]`, `reward2 = [4,4,1,1]`, $k = 2$
Output: 15
Explanation: In this example, the first mouse eats the 2nd (0-indexed) and the 3rd types of cheese, and the second mouse eats the 0th and 1st types of cheese. The total points are $4 + 4 + 3 + 4 = 15$. It can be proven that 15 is the maximum total points that the mice can achieve.

Example 2:

Input: `reward1 = [1,1]`, `reward2 = [1,1]`, $k = 2$
Output: 2
Explanation: In this example, the first mouse eats the 0th (0-indexed) and 1st types of cheese, and the second mouse does not eat any cheese. The total points are $1 + 1 = 2$. It can be proven that 2 is the maximum total points that the mice can achieve.

Constraints:

- $1 \leq n == reward1.length == reward2.length \leq 10^5$
- $1 \leq reward1[i], reward2[i] \leq 1000$
- $0 \leq k \leq n$

JavaScript

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```
1 const miceAndCheese = (a, b, k) => differenceGreedy(a, b, k)
2
3 const differenceGreedy = (a, b, k) => {
4   let n = a.length, diff = [], res = 0;
5   for (let i = 0; i < n; i++) {
6     res += b[i]; // suppose all cheese are eaten by second mouse at first
7     diff.push(a[i] - b[i]);
8   }
9   diff.sort((x, y) => y - x);
10  for (let i = 0; i < k; i++) res += diff[i]; // greedy: replace the first k cheese eaten by first mouse from higher -> lower
11  return res;
12 };
```

☐ Custom Testcase

Use Example Testcases

Run

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Submission Result: **Accepted** (/submissions/detail/926940137/) ⓘ

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