

5786. Maximum Number of Removable Characters

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You are given two strings s and p where p is a **subsequence** of s . You are also given a **distinct 0-indexed** integer array `removable` containing a subset of indices of s (s is also **0-indexed**).

You want to choose an integer k ($0 \leq k \leq \text{removable.length}$) such that, after removing k characters from s using the **first** k indices in `removable`, p is still a **subsequence** of s . More formally, you will mark the character at `s[removable[i]]` for each $0 \leq i < k$, then remove all marked characters and check if p is still a subsequence.

Return the **maximum** k you can choose such that p is still a **subsequence** of s after the removals.

A **subsequence** of a string is a new string generated from the original string with some characters (can be none) deleted without changing the relative order of the remaining characters.

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

Example 1:

Input: $s = \text{"abcacb"}, p = \text{"ab"}, \text{removable} = [3,1,0]$

Output: 2

Explanation: After removing the characters at indices 3 and 1, "~~a~~~~b~~cacb" becomes "accb".

"ab" is a subsequence of "accb".

If we remove the characters at indices 3, 1, and 0, "~~a~~~~b~~~~c~~acb" becomes "ccb", and "ab" is no longer a subsequence. Hence, the maximum k is 2.

Example 2:

Input: $s = \text{"abcbddddd"}, p = \text{"abcd"}, \text{removable} = [3,2,1,4,5,6]$

Output: 1

Explanation: After removing the character at index 3, "abcbddddd" becomes "abddddd".

"abcd" is a subsequence of "abcddddd".

Example 3:

Input: $s = \text{"abcab"}, p = \text{"abc"}, \text{removable} = [0,1,2,3,4]$

Output: 0

Explanation: If you remove the first index in the array `removable`, "abc" is no longer a subsequence.

Constraints:

- $1 \leq p.length \leq s.length \leq 10^5$
- $0 \leq \text{removable.length} < s.length$
- $0 \leq \text{removable}[i] < s.length$
- p is a **subsequence** of s .
- s and p both consist of lowercase English letters.
- The elements in `removable` are **distinct**.

JavaScript




```
1 /**
2  * @param {string} s
```

```
3  * @param {string} p
4  * @param {number[]} removable
5  * @return {number}
6  */
7  var maximumRemovals = function(s, p, removable) {
8
9  };
```

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