

167. Two Sum II - Input Array Is Sorted

- Given a 1-indexed array of integers numbers that is already sorted in non-decreasing order, find two numbers such that they add up to a specific target number. Let these two numbers be numbers[index1] and numbers[index2] where $1 \leq \text{index1} < \text{index2} \leq \text{numbers.length}$.
- Return the indices of the two numbers, index1 and index2, added by one as an integer array [index1, index2] of length 2.
- The tests are generated such that there is exactly one solution. You may not use the same element twice.
- Your solution must use only constant extra space.

Example 1:

- **Input:** numbers = [2,7,11,15], target = 9
- **Output:** [1,2]
- **Explanation:** The sum of 2 and 7 is 9. Therefore, index1 = 1, index2 = 2. We return [1, 2].

Example 2:

- **Input:** numbers = [2,3,4], target = 6
- **Output:** [1,3]
- **Explanation:** The sum of 2 and 4 is 6. Therefore index1 = 1, index2 = 3. We return [1, 3].

Example 3:

- **Input:** numbers = [-1,0], target = -1
- **Output:** [1,2]
- **Explanation:** The sum of -1 and 0 is -1. Therefore index1 = 1, index2 = 2. We return [1, 2].

Constraints:

- $2 \leq \text{numbers.length} \leq 3 * 10^4$
- $-1000 \leq \text{numbers}[i] \leq 1000$
- numbers is sorted in non-decreasing order.
- $-1000 \leq \text{target} \leq 1000$
- The tests are generated such that there is exactly one solution.