

Question 11: Two Sum in Sorted Array

Problem

Find two numbers in a sorted array that add up to a target value.

Algorithm: Two-Pointer Approach

1. Initialize two pointers, one at the beginning (left) and one at the end (right) of the array.
2. While left < right: a. Calculate the sum of elements at left and right positions. b. If sum equals target, return these two positions. c. If sum is less than target, increment left pointer. d. If sum is greater than target, decrement right pointer.
3. If no solution is found, return an empty result.

Program Implementation

cpp

```
#include <iostream>
#include <vector>
using namespace std;

vector<int> twoSum(const vector<int>& numbers, int target) {
    int left = 0;
    int right = numbers.size() - 1;
    while (left
```