

# LeetCode Questions (Sandwiched)

## Two Sum

Given an array of integers `nums` and an integer `target`, return indices of the two numbers such that they add up to `target`.

You may assume that each input would have exactly one solution, and you may not use the same element twice.

You can return the answer in any order.

Example 1:

```
Input: nums = [2,7,11,15], target = 9
```

```
Output: [0,1]
```

```
Explanation: Because nums[0] + nums[1] == 9, we return [0, 1].
```

Example 2:

```
Input: nums = [3,2,4], target = 6
```

```
Output: [1,2]
```

Example 3:

```
Input: nums = [3,3], target = 6
```

```
Output: [0,1]
```

Constraints:

- $2 \leq \text{nums.length} \leq 10^4$
- $-10^9 \leq \text{nums}[i] \leq 10^9$
- $-10^9 \leq \text{target} \leq 10^9$
- Only one valid answer exists.

Follow-up:

Can you come up with an algorithm that is less than

$O(n^2)$

time complexity?

## Add Two Numbers

You are given two non-empty linked lists representing two non-negative integers. The digits are stored in reverse order, and each of their nodes contains a single digit. Add the two numbers and return the sum as a linked list.

You may assume the two numbers do not contain any leading zero, except the number 0 itself.

Example 1:

Input: l1 = [2,4,3], l2 = [5,6,4]

Output: [7,0,8]

Explanation: 342 + 465 = 807.

Example 2:

Input: l1 = [0], l2 = [0]

Output: [0]

Example 3:

Input: l1 = [9,9,9,9,9,9,9], l2 = [9,9,9,9]

Output: [8,9,9,9,0,0,0,1]

Constraints:

- The number of nodes in each linked list is in the range [1, 100].
- $0 \leq \text{Node.val} \leq 9$
- It is guaranteed that the list represents a number that does not have leading zeros.

## Longest Substring Without Repeating Characters

Given a string `s`, find the length of the longest substring without repeating characters.

Example 1:

Input: `s = "abcabcbb"`

Output: `3`

Explanation: The answer is "abc", with the length of 3.

Example 2:

Input: `s = "bbbbbb"`

Output: `1`

Explanation: The answer is "b", with the length of 1.

Example 3:

Input: `s = "pwwkew"`

Output: `3`

Explanation: The answer is "wke", with the length of 3.

Notice that the answer must be a substring, "pwke" is a subsequence and not a substring.

Constraints:

-  $0 \leq s.length \leq 5 * 10^4$

- `s` consists of English letters, digits, symbols and spaces.