

# QUESTION NO 1

## PLUS ONE

You are given a **large integer** represented as an integer array `digits`, where each `digits[i]` is the  $i^{\text{th}}$  digit of the integer. The digits are ordered from most significant to least significant in left-to-right order. Increment the large integer by one and return *the resulting array of digits*.

∴ The large integer does not contain any leading `0's`.

### Example 1:

**Input:** `digits = [1,2,3]`

**Output:** `[1,2,4]`

**Explanation:** The array represents the integer 123.

Incrementing by one gives  $123 + 1 = 124$ .

Thus, the result should be `[1,2,4]`.

### Example 2:

**Input:** `digits = [4,3,2,1]`

**Output:** `[4,3,2,2]`

**Explanation:** The array represents the integer 4321.

Incrementing by one gives  $4321 + 1 = 4322$ .

Thus, the result should be `[4,3,2,2]`.

### Example 3:

**Input:** `digits = [9]`

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

**Explanation:** The array represents the integer 9.

Incrementing by one gives  $9 + 1 = 10$ .

Thus, the result should be `[1,0]`.

### Constraints:

- `1 <= digits.length <= 100`
- `0 <= digits[i] <= 9`
- `digits` does not contain any leading `0's`

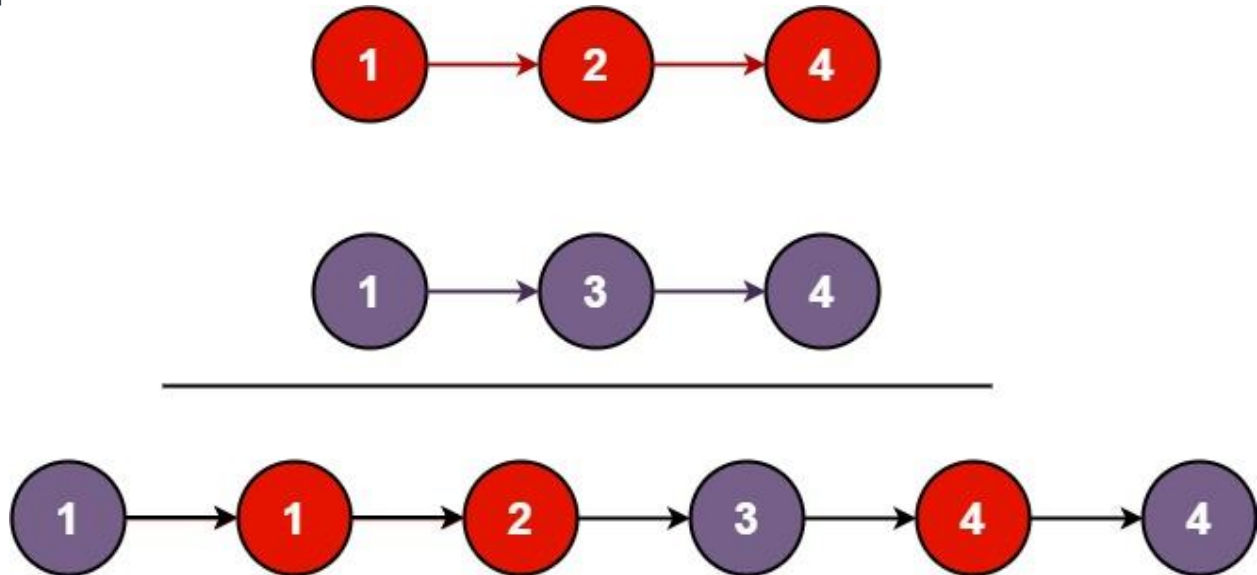
## QUESTION NO 2

### MERGE TWO SORTED LISTS

You are given the heads of two sorted linked lists `list1` and `list2`. Merge the two lists in a one **sorted** list. The list should be made by splicing together the nodes of the first two lists.

Your function should return `the head of merged linked list`.

**Example 1:**



Input: `list1 = [1,2,4]`, `list2 = [1,3,4]`

Output: `[1,1,2,3,4,4]`

**Example 2:**

Input: `list1 = []`, `list2 = []`

Output: `[]`

**Example 3:**

Input: `list1 = []`, `list2 = [0]`

Output: `[0]`

**Constraints:**

- The number of nodes in both lists is in the range `[0,50]`.
- `-100 <= Node.val <= 100`
- Both `list1` and `list2` are sorted in **non-decreasing** order

## QUESTION NO 3

### PANGRAM

Given a string `sentence` containing only lowercase English letters, return `true` if `sentence` is a **pangram**, or `false` otherwise.

∴ A **pangram** is a sentence in which every letter of the English alphabet appears at least once.

#### Example 1:

**Input:** `sentence = "thequickbrownfoxjumpsoverthelazydog"`

**Output:** `true`

**Explanation:** sentence contains at least one of every letter of the English alphabet.

#### Example 2:

**Input:** `sentence = "leetcode"`

**Output:** `false`

#### Constraints:

- `1 <= sentence.length <= 1000`
- `sentence` consists of lowercase English letters only

