Problem 3697: Compute Decimal Representation

Problem Information

Difficulty: Easy
Acceptance Rate: 61.60%
Paid Only: No
Tags: Array, Math

Problem Description

You are given a **positive** integer `n`.

A positive integer is a **base-10 component** if it is the product of a single digit from 1 to 9 and a non-negative power of 10. For example, 500, 30, and 7 are **base-10 components** , while 537, 102, and 11 are not.

Express `n` as a sum of **only** base-10 components, using the **fewest** base-10 components possible.

Return an array containing these **base-10 components** in **descending** order.

Example 1:

Input: n = 537

Output: [500,30,7]

Explanation:

We can express 537 as `500 + 30 + 7`. It is impossible to express 537 as a sum using fewer than 3 base-10 components.

Example 2:

Input: n = 102

Output: [100,2]

Explanation:

We can express 102 as `100 + 2`. 102 is not a base-10 component, which means 2 base-10 components are needed.

Example 3:

Input: n = 6

Output: [6]

Explanation:

6 is a base-10 component.

Constraints:

* `1 <= n <= 109`

Code Snippets

C++:

```
class Solution {
public:
vector<int> decimalRepresentation(int n) {

}
};
```

Java:

```
class Solution {
public int[] decimalRepresentation(int n) {
```

```
}
}
```

Python3:

```
class Solution:
def decimalRepresentation(self, n: int) -> List[int]:
```