Problem 258: Add Digits

Problem Information

Difficulty: Easy
Acceptance Rate: 68.35%
Paid Only: No
Tags: Math, Simulation, Number Theory

Problem Description

Given an integer `num`, repeatedly add all its digits until the result has only one digit, and return it.

Example 1:

Input: num = 38 **Output:** 2 **Explanation:** The process is 38 --> 3 + 8 --> 11 11 --> 1 + 1 --> 2 Since 2 has only one digit, return it.

Example 2:

Input: num = 0 **Output:** 0

Constraints:

* `0 <= num <= 231 - 1`

Follow up: Could you do it without any loop/recursion in `O(1)` runtime?

Code Snippets

C++:

```
class Solution {
public:
int addDigits(int num) {
```

```
}
};
```

Java:

```
class Solution {
public int addDigits(int num) {

}
}
```

Python3:

```
class Solution:
def addDigits(self, num: int) -> int:
```