

Problem 3622: Check Divisibility by Digit Sum and Product

Problem Information

Difficulty: Easy

Acceptance Rate: 66.25%

Paid Only: No

Tags: Math

Problem Description

You are given a positive integer `n`. Determine whether `n` is divisible by the **sum** of the following two values:

- * The **digit sum** of `n` (the sum of its digits).
- * The **digit** **product** of `n` (the product of its digits).

Return `true` if `n` is divisible by this sum; otherwise, return `false`.

Example 1:

Input: n = 99

Output: true

Explanation:

Since 99 is divisible by the sum ($9 + 9 = 18$) plus product ($9 * 9 = 81$) of its digits (total 99), the output is true.

Example 2:

Input: n = 23

****Output:**** false

****Explanation:****

Since 23 is not divisible by the sum ($2 + 3 = 5$) plus product ($2 * 3 = 6$) of its digits (total 11), the output is false.

****Constraints:****

* `1 <= n <= 10^6`

Code Snippets

C++:

```
class Solution {  
public:  
    bool checkDivisibility(int n) {  
  
    }  
};
```

Java:

```
class Solution {  
    public boolean checkDivisibility(int n) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def checkDivisibility(self, n: int) -> bool:
```