

Problem 172: Factorial Trailing Zeroes

Problem Information

Difficulty: Medium

Acceptance Rate: 45.67%

Paid Only: No

Tags: Math

Problem Description

Given an integer n , return the number of trailing zeroes in $n!$.

Note that $n! = n * (n - 1) * (n - 2) * ... * 3 * 2 * 1$.

Example 1:

Input: $n = 3$ **Output:** 0 **Explanation:** $3! = 6$, no trailing zero.

Example 2:

Input: $n = 5$ **Output:** 1 **Explanation:** $5! = 120$, one trailing zero.

Example 3:

Input: $n = 0$ **Output:** 0

Constraints:

$0 \leq n \leq 10^4$

Follow up: Could you write a solution that works in logarithmic time complexity?

Code Snippets

C++:

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

Java:

```
class Solution {  
    public int trailingZeroes(int n) {  
  
    }  
}
```

Python3:

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