Problem 2652: Sum Multiples

Problem Information

Difficulty: Easy
Acceptance Rate: 85.55%
Paid Only: No
Tags: Math

Problem Description

Given a positive integer `n`, find the sum of all integers in the range `[1, n]` **inclusive** that are divisible by `3`, `5`, or `7`.

Return _an integer denoting the sum of all numbers in the given range satisfying the constraint._

Example 1:

Input: n = 7 **Output:** 21 **Explanation:** Numbers in the range [1, 7] that are divisible by 3, 5, or 7 are 3, 5, 6, 7. The sum of these numbers is 21.

Example 2:

Input: n = 10 **Output:** 40 **Explanation:** Numbers in the range [1, 10] that are divisible by 3, 5, or 7 are 3, 5, 6, 7, 9, 10. The sum of these numbers is 40.

Example 3:

Input: n = 9 **Output:** 30 **Explanation:** Numbers in the range [1, 9] that are divisible by 3, 5, or 7 are 3, 5, 6, 7, 9. The sum of these numbers is 30.

Constraints:

* `1 <= n <= 103`

Code Snippets

C++:

```
class Solution {
public:
int sumOfMultiples(int n) {

}
};
```

Java:

```
class Solution {
public int sumOfMultiples(int n) {

}
}
```

Python3:

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