

## Copilot

Sure! Let's break down the problem and then write a Python solution for it.

### Problem Breakdown

1. **Divisors:** A divisor of a number (  $N$  ) is any number that divides (  $N$  ) without leaving a remainder. For example, the divisors of 6 are 1, 2, 3, and 6.
2. **Divisible by 3:** We need to find which of these divisors are divisible by 3.

### Steps to Solve the Problem

1. **Find all divisors of (  $N$  ):** Loop through all numbers from 1 to (  $N$  ) and check if they are divisors of (  $N$  ).
2. **Check divisibility by 3:** For each divisor, check if it is divisible by 3.
3. **Count the divisors:** Keep a count of how many divisors are divisible by 3.

### Python Code

Here's how you can implement this in Python:

```
def count_divisors_divisible_by_3(N):  
    count = 0 # Initialize the count of divisors divisible by 3  
    for i in range(1, N + 1): # Loop through all numbers from 1 to N  
        if N % i == 0: # Check if i is a divisor of N  
            if i % 3 == 0: # Check if the divisor is divisible by 3  
                count += 1 # Increment the count  
    return count # Return the final count  
  
# Example usage:  
N = 12  
print("Number of divisors of", N, "that are divisible by 3:", count_divisors_divisible_by_3(N))
```

### Explanation

1. **Initialization:** We start by initializing a variable count to 0. This will keep track of the number of divisors that are divisible by 3.
2. **Loop through numbers:** We use a for loop to iterate through all numbers from 1 to (  $N$  ).
3. **Check for divisors:** Inside the loop, we use the modulus operator % to check if  $i$  is a divisor of (  $N$  ) (i.e.,  $N \% i == 0$ ).
4. **Check divisibility by 3:** If  $i$  is a divisor, we then check if it is divisible by 3 (i.e.,  $i \% 3 == 0$ ).
5. **Count the divisors:** If both conditions are met, we increment the count by 1.
6. **Return the count:** After the loop finishes, we return the count.

Feel free to ask if you have any questions or need further clarification!