



Gemini ▾

+ Gemini Advanced ausprobieren



Consider the following programming problem:

Given an integer N , find the number of divisors of N that are divisible by 3.

Please provide a solution for this problem in the Python language.

Vorschläge anzeigen ▾



Python

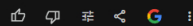
```
def count_divisors_divisible_by_3(N):  
    """Counts the number of divisors of N that are divisible by 3.  
  
    Args:  
        N: The integer for which to count the divisors.  
  
    Returns:  
        The number of divisors of N that are divisible by 3.  
    """  
  
    count = 0  
    for i in range(3, N + 1, 3): # Iterate over multiples of 3 from 3 to N  
        if N % i == 0: # Check if i is a divisor of N  
            count += 1  
    return count  
  
# Example usage:  
N = 24  
result = count_divisors_divisible_by_3(N)  
print("Number of divisors of", N, "divisible by 3:", result)
```

Verwende den Code [mit Vorsicht](#).

Explanation:

- Function Definition:** The `count_divisors_divisible_by_3` function takes an integer `N` as input.
- Initialization:** A variable `count` is initialized to 0 to store the count of divisors.
- Iteration:** The `for` loop iterates over multiples of 3 from 3 to `N`.
- Divisor Check:** Inside the loop, it checks if the current multiple `i` is a divisor of `N` using the modulo operator `%`.
- Incrementing Count:** If `i` is a divisor, the `count` is incremented by 1.
- Return Value:** After the loop, the function returns the final `count` value, which represents the number of divisors of `N` that are divisible by 3.

Example usage demonstrates how to call the function and print the result for a given `N`.



Prompt hier eingeben

Gemini zeigt möglicherweise fehlerhafte Informationen an, z. B. zu Personen. Überprüfe daher die Antworten. [Datenschutz & Gemini-Apps](#)