

I'm working on a Python programming problem. The current program below is not working well. Can you help by giving a hint? Below I first provide the problem description and then the current buggy program.

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

Buggy Program:

```
class P3_Python_buggy:

    def find_divisors_divisible_by_3(N):
        count = 0

        for i in range(1, N + 1):
            if N % i != 0:
                if i % 3 == 0:
                    count += 1

        return count

    def main():
        n = 36 # Beispielwert
        count = P3_Python_buggy.find_divisors_divisible_by_3(n)
        print(f"Number of divisors of (n) that are divisible by 3: {count}")

if __name__ == "__main__":
    P3_Python_buggy.main()
```

(1) Can you describe the bug(s) in this program and the required fixes?
(2) Can you provide a concise single-sentence hint about one bug in this program?
The hint should not be too detailed as I want to think about the fixes by myself.
However, the hint should not be too abstract, as I need some help.

Vorschläge anzeigen ▾

(1) **Bug:** The program is checking if a number is *not* a divisor of N before checking if it's divisible by 3. This is incorrect because if a number is not a divisor, it cannot be divisible by 3 either.

Required Fixes:

- Reverse the order of the checks: First, check if i is a divisor of N , and then check if i is divisible by 3.
- Avoid using the `if N % i != 0` condition, as it's unnecessary.

(2) **Hint:** The `if N % i != 0` condition is misplaced. It should be after the check for divisibility by 3, not before.

Prompt hier eingeben

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