

CS23331-DAA-2024-CSE / Problem 3: Finding Complexity using Counter Method



Problem 3: Finding Complexity using Counter Method

Started on	Tuesday, 30 September 2025, 12:32 PM
State	Finished
Completed on	Tuesday, 30 September 2025, 12:36 PM
Time taken	3 mins 39 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100%)

Question 1 | Correct Mark 1.00 out of 1.00 [Flag question](#)

Convert the following algorithm into a program and find its time complexity using counter method.

```
Factor(num) {
{
for (i = 1; i <= num;++i)
{
if (num % i== 0)
{
printf("%d ", i);
}
}
}
```

Note: No need of counter increment for declarations and scanf() and counter variable printf() statement.

Input:

A positive Integer n

Output:

Print the value of the counter variable

Answer:

```
1 #include <stdio.h>
2
3 int main()
4 {
5     int count=0;
6     int i,num;
7     scanf("%d",&num);
8
9     for (i = 1; i <= num;++i)
10    {
11        count++;
12        count++;
13        if (num % i== 0)
14        {
15            count++;
16        }
17    }
18    count++;
19    printf("%d",count);
20 }
21
```

	Input	Expected	Got	
✓	12	31	31	✓
✓	25	54	54	✓
✓	4	12	12	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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