



Problem 3: Finding Complexity using Counter Method

Started on	Sunday, 24 August 2025, 8:05 PM
State	Finished
Completed on	Sunday, 24 August 2025, 8:27 PM
Time taken	21 mins 51 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100%)

Question 1 | Correct Mark 1.00 out of 1.00 

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 int count=0;
3 void func(int n){
4     count++;
5     for(int i=1;i<=n;++i){
6         count++;
7         if(n%i==0){
8             count++;
9         }
10        count++;
11    }
12    printf("%d",count);
13 }
14 int main(){
15     int n;
16     scanf("%d",&n);
17     func(n);
18 }
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[Finish review](#)

[Back to Course](#)

Data retention summary