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



Problem 3: Finding Complexity using Counter Method

Started on	Thursday, 28 August 2025, 1:02 PM
State	Finished
Completed on	Thursday, 28 August 2025, 1:43 PM
Time taken	40 mins 46 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 void fact(int n){  
3     int count=1;  
4     for(int i=1;i<=n;++i){  
5         count++;  
6         count++;  
7         if(n%i==0){  
8             count++;  
9         }  
10    }  
11    printf("%d",count);  
12 }  
13 int main(){  
14     int n;  
15     scanf("%d",&n);  
16     fact(n);  
17     return 0;  
18 }
```

Input	Expected	Got
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✓	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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