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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);
        }
}</pre>
```

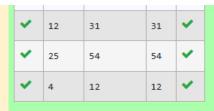
```
}

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:

```
#include<stdio.h>
    void fact(int n){
 3
        int count=1;
4
        for(int i=1;i<=n;++i){</pre>
 5
            count++;
 6
           count++;
           if(n%i==0){
7
 8
                count++;
9
10
        printf("%d",count);
11
12
13
   int main(){
14
        int n;
        scanf("%d",&n);
15
16
        fact(n);
17
        return 0;
18
```



Passed all tests! 🗸

Correct

Marks for this submission: 1.00/1.00.

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Data retention summary