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Started on	Thursday, 8 August 2024, 11:42 AM
State	Finished
Completed on	Monday, 19 August 2024, 10:09 AM
Time taken	10 days 22 hours
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 Factor(int num,int count)
3 {
4     for (int i = 1; i <= num;++i,count++)
5     {
6         count++;
7         if (num % i== 0)
8         {
9             count++;
10            //printf("%d ", i);
11        }
12    }
13    count++;
14    return count;
15 }
16 int main(){
17     int n,count=0;
18     scanf("%d",&n);
19     count+=Factor(n,count);
20     printf("%d",count);
21     return 0;
22 }
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[◀ Problem 2: Finding Complexity using Counter method](#)

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