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Started on	Thursday, 8 August 2024, 11:20 AM
State	Finished
Completed on	Thursday, 8 August 2024, 11:28 AM
Time taken	7 mins 32 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
3 void Factor(int num) {
4     int count=0;
5     for(int i=1 ; i<=num ; i++) {
6         count++; //for loop condition
7         if(num%i==0){
8             //printf("%d ",i);
9             count++; //printf
10        }
11        count++; //if statement check
12    }
13    printf("%d",++count); //for loop condition
14 }
15
16 int main(){
17     int n;
18     scanf("%d",&n);
19     Factor(n);
20 }
```

	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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