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Started on	Friday, 9 August 2024, 2:14 PM
State	Finished
Completed on	Friday, 9 August 2024, 2:37 PM
Time taken	22 mins 50 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
2 #include<stdio.h>
3 int Factor(int num)
4 {
5     int count=0;
6
7     for (int i = 1; i <= num;++i)
8     {
9         count++;
10        if (num % i== 0)
11        {
12            //printf("%d ", i);
13            count++;
14        }
15
16        count++;
17    }
18
19    return count+1;
20 }
21
22 int main(){
23     int num;
24     scanf("%d",&num);
25     printf("%d",Factor(num));
26
27 }
28
```

	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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[Problem 4: Finding Complexity using Counter Method ▶](#)