

Started on Monday, 4 August 2025, 4:17 PM

State Finished

Completed on Monday, 4 August 2025, 4:30 PM

Time taken 12 mins 20 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:

Reset answer

```
1 #include<stdio.h>  
2 void factor(int);  
3 int count=0;  
4 ... ... /\\
```

```
4 int main()
5 {
6     int n;
7     scanf("%d",&n);
8     factor(n);
9     printf("%d",count);
10
11 }
12 void factor(int num)
13 {
14     for (int i = 1; i <= num; ++i)
15     {
16         count++;
17         count++;
18         if(num % i== 0)
19         {
20             // printf("%d",i);
21             count++;
22         }
23     }count++;
24 }
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

