

Started on Thursday, 31 July 2025, 8:51 AM

State Finished

Completed on Thursday, 31 July 2025, 9:04 AM

Time taken 12 mins 54 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 main()
4 {
5     int num;
6     scanf("%d",&num);
7     Factor(num);
8 }
9 void Factor(int num)
10 {
11     int count=0;
12     for(int i=1; i<=num;++i)
13     {
14         count++;
15         //count++;
16         if(num%i==0)
17         {
18             count++;
19             //printf("%d",i);
20             //ount++;
21         }count++;
22     }
23     count++;
24     printf("%d",count);
25 }
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.