

Started on Monday, 4 August 2025, 4:11 PM

State Finished

Completed on Monday, 4 August 2025, 4:19 PM

Time taken 7 mins 40 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 int factor(int num)
3 {
4     int counter = 0;
5     for(int i=1;i<=num;++i)
6     {
7         counter++;
8         counter++;
9         if(num%i==0)
10        {
11            //printf("%d",1);
12            counter++;
13        }
14    }counter++;
15    return counter;
16 }
17
18 int main()
19 {
20     int num;
21     scanf("%d",&num);
22     int ans = factor(num);
23     printf("%d",ans);
24 }
```

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

	Input	Expected	Got	
✓	4	12	12	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.