

Started on Thursday, 31 July 2025, 9:12 AM

State Finished

Completed on Thursday, 31 July 2025, 9:19 AM

Time taken 7 mins 16 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 num)
3 {
4     int count=0;
5     for(int i=1;i<=num;++i)
6     {
7         count++;
8         count++;
9         if(num%i==0)
10        {
11
12            //printf("%d ",i);
13            count++;
14        }
15    }
16    count++;
17    printf("%d",count);
18 }
19
20 int main()
21 {
22     int num;
23     scanf("%d",&num);
24     Factor(num);
25 }
```

	Input	Expected	Got	
✓	12	31	31	✓

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.