

Started on Thursday, 31 July 2025, 8:57 AM

State Finished

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

Time taken 15 mins 13 secs

Marks 1.00/1.00

Grade 10.00 out of 10.00 (100%)

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