

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:

```
1 #include<stdio.h>
2 int factor(int num){
3     int count=0;
4     for(int i=1; i<=num; ++i){
5         count++;
6         count++;
7         if(num%i==0){
8             //printf("%d",i);
9             count++;
10        }
11    }
12    count++;
13    return count;
14 }
15 int main(){
16     int n;
17     scanf("%d",&n);
18     printf("%d",factor(n));
19 }
20
21
22
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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