

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

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

Passed all tests! ✓

Correct