Started on	Friday, 9 August 2024, 2:03 PM
State	Finished
Completed on	Friday, 9 August 2024, 2:18 PM
Time taken	15 mins 1 sec
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:

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