RAJALAKSHMI ENGINEERING COLLEGE

Started on	Wednesday, 6 August 2025, 2:29 PM
State	Finished
Completed on	Friday, 8 August 2025, 7:07 PM
Time taken	2 days 4 hours
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:

```
#include<stdio.h>
void factor(int num)
{
    int c=0;
    int i;
    for(i=1;i<=num;++i){
        c++;
        if(num%i==0){
            c++;
        }
        c++;
    }
    c++;
    printf("%d ",c);
}
int main(){
    int num;
    scanf("%d ",&num);
    factor(num);
}
```

	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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