**RAJALAKSHMI
ENGINEERING
COLLEGE**

🔔 ² **DEVISHREE J 2024-CSE** ⌄   **D2**

Started on	Wednesday, 20 August 2025, 9:02 AM
State	Finished
Completed on	Wednesday, 20 August 2025, 9:07 AM
Time taken	5 mins 5 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

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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 main(){
 3  int num,count=0;
 4  scanf("%d",&num);
 5  for(int i=1;i<=num;++i){
 6      count++;
 7      if(num%i==0){
 8          count++;
 9      }count++;
10  }count++;
11  printf("%d",count);
12
13  }
14
```

	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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