**RAJALAKSHMI
ENGINEERING
COLLEGE**

🔔⁴ **Vedhavyas Pavankalyan G L 2023-IT-A** ⌄ **V2**

Started on	Sunday, 19 October 2025, 10:23 AM
State	Finished
Completed on	Sunday, 19 October 2025, 10:25 AM
Time taken	2 mins 41 secs
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:

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

	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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Passed all tests! ✔

Correct