RAJALAKSHMI ENGINEERING COLLEGE

NEIL DANIEL A 2024-CSE

N2

Started on	Sunday, 17 August 2025, 7:39 PM
State	Finished
Completed on	Sunday, 17 August 2025, 7:47 PM
Time taken	8 mins 38 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:

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

int main(){
    int n;
    scanf("%d",&n);
    Factor(n);
}
```

	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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