RAJALAKSHMI ENGINEERING COLLEGE



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| **Started on** | Monday, 18 August 2025, 9:31 AM |
| **State** | Finished |
| **Completed on** | Monday, 18 August 2025, 9:49 AM |
| **Time taken** | 18 mins 2 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:**

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

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 12 | 31 | 31 | ✔ |
| ✔ | 25 | 54 | 54 | ✔ |
| ✔ | 4 | 12 | 12 | ✔ |

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Back to Course