CS23331-DAA-2024-CSE / Problem 3: Finding Complexity using Counter Method

Problem 3: Finding Complexity using Counter Method

Started on	Sunday, 17 August 2025, 8:39 PM
State	Finished
Completed on	Sunday, 17 August 2025, 8:44 PM
Time taken	5 mins 3 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100%)

Question 1 | Correct   Mark 1.00 out of 1.00   ⚑ Flag question

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 count=0;
4       int num;
5       scanf("%d",&num);
6       for(int i=1;i<=num;i++){
7           count++;
8           if(num%i==0){
9               //printf("%d",i);
10              count++;
11          }
12      }
13          count++;
14      }
15      count++;
16      printf("%d",count);
17
18  }
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Finish review

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