Started on	Monday, 19 August 2024, 10:10 AM
State	Finished
Completed on	Monday, 19 August 2024, 10:16 AM
Time taken	6 mins 30 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.

void function(int n)
{
    int c= 0;
    for(int i=n/2; i<n; i++)
        for(int j=1; j<n; j = 2 * j)
            for(int k=1; k<n; k = k * 2)
                c++;
}

Note: No need of counter increment for declarations and scanf() and  count variable printf() statements.

Input:
 A positive Integer n
Output:
Print the value of the counter variable
```

Answer:

```
 1  #include<stdio.h>
 2  int function(int n,int count)
 3  {
 4      int c=0;count++;
 5      for(int i=n/2; i<n; i++,count++){
 6          count++;
 7          for(int j=1; j<n; j = 2 * j,count++){
 8              count++;
 9              for(int k=1; k<n; k = k * 2,count++){
10                  c++;
11                  count++;
12              }
13          }
14      }
15      count++;
16      return count;
17  }
18
19  int main(){
20      int count=0,n;
21      scanf("%d",&n);
22      count+=function(n,count);
23      printf("%d",count);
24
25  }
```

	Input	Expected	Got	
✔	4	30	30	✔
✔	10	212	212	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Problem 3: Finding Complexity using Counter Method