Started on	Tuesday, 20 August 2024, 2:33 PM
State	Finished
Completed on	Tuesday, 20 August 2024, 2:45 PM
Time taken	11 mins 24 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:

```
#include<stdio.h>
void function(int n)
{
    int c= 0;
    int counter=1;
    for(int i=n/2; i<n; i++){
        counter++;

        for(int j=1; j<n; j = 2 * j){
            counter++;

            for(int k=1; k<n; k = k * 2){
                counter++;

                c++;
                counter++;
            }
            counter++;

        }
        counter++;
    }
    counter++;
    printf("%d",counter);
}
int main(){
    int n;
    scanf("%d",&n);
    function(n);
}
```

	Input	Expected	Got	
✔	4	30	30	✔

	Input	Expected	Got	
✔	10	212	212	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Problem 3: Finding Complexity using Counter Method

Jump to...

Problem 5: Finding Complexity using counter method ►