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Started on	Tuesday, 13 August 2024, 2:54 PM
State	Finished
Completed on	Friday, 16 August 2024, 11:42 AM
Time taken	2 days 20 hours
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 void function(int n)
3 {
4     int c= 0;
5     for(int i=n/2; i<n; i++){
6         c++;
7         for(int j=1; j<n; j = 2 * j){
8             c++;
9             for(int k=1; k<n; k = k * 2){
10                c++;c++;
11            }c++;
12        }c++;
13    }c++;
14    c++;
15    printf("%d",c);
16 }
17
18 int main(){
19     int n;
20     scanf("%d",&n);
21     function(n);
22 }
```

	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](#)

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[Problem 5: Finding Complexity using counter method ▶](#)