**RAJALAKSHMI
ENGINEERING
COLLEGE**

🔔   **CHANDRU G S 2024-CSE** ⌄   **C2**

Started on	Sunday, 31 August 2025, 10:39 AM
State	Finished
Completed on	Sunday, 31 August 2025, 10:48 AM
Time taken	9 mins 51 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
3  void function(int n)
4 ▾{
5      int c= 0,count=0;
6      count++;
7 ▾    for(int i=n/2; i<n; i++){
8          count++;
9 ▾        for(int j=1; j<n; j = 2 * j){
10             count++;
11 ▾            for(int k=1; k<n; k = k * 2){
12                 count+=2;
13                 c++;
14             }count++;
15
16         }count++;
17     }count++;
18     printf("%d",count);
19 }
20 ▾int main(){
21     int n;
22     scanf("%d",&n);
23     function(n);
24 }
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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Correct

Marks for this submission: 1.00/1.00.