Started on	Thursday, 31 July 2025, 9:06 AM
State	Finished
Completed on	Thursday, 31 July 2025, 9:15 AM
Time taken	8 mins 59 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:

Reset answer

```
1   #include<stdio.h>
2   void function(int);
3  ▾ int main(){
4       int n;
5       scanf("%d",&n);
6       function(n);
7
8   }
9  ▾ void function(int n){
10      int count=0;
11      int c=0;
12      count++;
13 ▾    for(int i=n/2; i<n; i++){
14          count++;
15 ▾        for(int j=1; j<n; j = 2 * j){
16              count++;
17 ▾            for(int k=1; k<n; k = k * 2){
18                  count++;
19                  c++;
20                  count++;
21
22              }
23              count++;
24
25          }
26          count++;
27      }
28      count++;
29      printf("%d",count);
30
31  }
```

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

Passed all tests! ✔

[Correct]

Marks for this submission: 1.00/1.00.