Started on	Monday, 11 August 2025, 3:50 PM
State	Finished
Completed on	Monday, 11 August 2025, 3:55 PM
Time taken	5 mins 15 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 n)
3 ▾ {
4   int ct=0;
5   int c=0;
6   ct++;
7   for(int i=n/2;i<n;i++)
8 ▾ {
9   ct++;
10  for(int j=1;j<n;j=2*j)
11 ▾ {
12  ct++;
13  for(int k=1;k<n;k=k*2)
14 ▾ {
15  ct++;
16  c++;
17  ct++;
18  }
19  ct++;
20  }
21  ct++;
22  }
23  ct++;
24  printf("%d",ct);
25  }
26  int main()
27 ▾ {
28  int n;
29  scanf("%d",&n);
30  function(n);
31  }
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.