Started on	Sunday, 31 August 2025, 10:22 AM
State	Finished
Completed on	Sunday, 31 August 2025, 10:26 AM
Time taken	4 mins 17 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

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   int main(){
3       int n;
4       scanf("%d",&n);
5       int c=0;
6       c++;
7       for(int i=n/2;i<n;i++){
8           c++;
9           for(int j=1;j<n;j=2*j){
10              c++;
11              for(int k=1;k<n;k=k*2){
12                  c++;
13                  c++;
14              }
15              c++;
16          }
17          c++;
18      }
19      c++;
20      printf("%d",c);
21      return 0;
22  }
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Back to Course