Started on	Friday, 8 August 2025, 1:42 PM
State	Finished
Completed on	Friday, 8 August 2025, 1:47 PM
Time taken	4 mins 28 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
 3  int main(){
 4      int count = 0;
 5      count++;
 6      int c = 0;
 7      int n;
 8      scanf("%d", &n);
 9      count++;
10      for(int i=n/2; i<n; i++){
11          count++;
12          for(int j=1; j<n; j=2*j){
13              count++;
14              for(int k=1; k<n; k=k*2){
15                  count++;
16                  c++;
17                  count++;
18              }
19              count++;
20          }
21          count++;
22      }
23      printf("%d", count);
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.