Started on	Monday, 4 August 2025, 4:31 PM
State	Finished
Completed on	Tuesday, 5 August 2025, 9:27 PM
Time taken	1 day 4 hours
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

```
#include<stdio.h>
int function(int n)
{
    int counter =0;
    int c =0;
    counter++;
    for(int i=n/2;i<n;i++)
    {
        counter++;
        for(int j=1;j<n;j=2*j)
        {
            counter++;
            for(int k=1;k<n;k=k*2)
            {
                counter++;
                c++;
                counter++;
            }counter++;
        }counter++;
    }counter++;
    return counter;
}
int main()
{
    int n;
    scanf("%d",&n);
    int ans = function(n);
    printf("%d",ans);
}
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.