Started on	Thursday, 31 July 2025, 9:05 AM
State	Finished
Completed on	Thursday, 31 July 2025, 9:15 AM
Time taken	10 mins 8 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);
```

```c
int main()
{
    int n;
    scanf("%d",&n);
    function(n);
}
void function(int n)
{
    int count=0;
    //int c=0;
    count++;
    for(int i=n/2; i<n;i++)
    {
      count++;
      for(int j=1;j<n;j=2*j)
      {
        count++;
        for(int k=1;k<n;k=k*2)
        {
          count++;
          //c++;
          count++;
        }
        count++;
      }
      count++;
    }
    count++;
    printf("%d",count);
}
```

	Input	Expected	Got	
✔	4	30	30	✔

	Input	Expected	Got	
✔	10	212	212	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.