Started on	Sunday, 17 August 2025, 2:44 PM
State	Finished
Completed on	Sunday, 17 August 2025, 3:00 PM
Time taken	16 mins 52 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 the counter method.

```
void function (int n)
{
    int i= 1;
```

```
    int s =1;
```

```
    while(s <= n)
    {
         i++;
         s += i;
     }
}
```

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

For example:

Input	Result
9	12

Answer: (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
#include<stdio.h>
int main()
{
    int n;
    int count=0;
    scanf("%d",&n);
    int i=1; count++;
    int s=1; count++;
    while(s<=n)
    {
        count++;
        i++;
        count++;
        s+=i;
        count++ ;

    }
    count++;
```

	Input	Expected	Got	
✔	9	12	12	✔
✔	4	9	9	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Back to Course

Started on	Sunday, 17 August 2025, 3:01 PM
State	Finished
Completed on	Sunday, 17 August 2025, 3:19 PM
Time taken	17 mins 59 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 the counter method.

```
void func(int n)
{
    if(n==1)
    {
      printf("*");
    }
    else
    {
     for(int i=1; i<=n; i++)
     {
       for(int j=1; j<=n; j++)
       {
          printf("*");
          printf("*");
          break;
       }
     }
   }
 }
```

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: (penalty regime: 0 %)

```
#include<stdio.h>
int main()
{
    int count=0;
    int n;
    scanf("%d",&n);
    if(n==1)
    {
      //  printf("*");
        count++;
    }
    else
    {
        count++;
        for(int i=1;i<=n;i++)
        {
            count++;
            for(int j=1;j<=n;j++)
            {
                count++;
             //  printf("*");
            count++;
            //    printf("*");
            count++;
                break; count++;
            }
            count++;

        }
        count++;
```

```
31      }
32      printf("%d",count);
33  }
```

	Input	Expected	Got	
✔	2	12	12	✔
✔	1000	5002	5002	✔
✔	143	717	717	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Back to Course

Started on	Monday, 18 August 2025, 8:46 PM
State	Finished
Completed on	Monday, 18 August 2025, 9:01 PM
Time taken	14 mins 31 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.

```
Factor(num) {
{
   for (i = 1; i <= num;++i)
   {
    if (num % i== 0)
       {
         printf("%d ", i);
       }
    }
 }
```

Note: No need of counter increment for declarations and scanf() and counter variable printf() statement.

Input:

A positive Integer n

Output:

Print the value of the counter variable

Answer:

```c
#include<stdio.h>
int main()
{
    int i,num;
    scanf("%d",&num);
    int count=0;
    for(i=1;i<=num;++i)
    {
        count++;
        if(num%i==0)
        {
            count++;
            //printf("%d",i);
        }
        count++;
    }
    count++;
    printf("%d",count);
}
```

	Input	Expected	Got	
✔	12	31	31	✔
✔	25	54	54	✔
✔	4	12	12	✔

Passed all tests! ✔

Started on	Monday, 18 August 2025, 9:02 PM
State	Finished
Completed on	Monday, 18 August 2025, 9:14 PM
Time taken	12 mins 25 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:

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

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

Passed all tests! ✔

Correct

Started on	Monday, 18 August 2025, 9:15 PM
State	Finished
Completed on	Monday, 18 August 2025, 9:28 PM
Time taken	13 mins 6 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 reverse(int n)
{
   int rev = 0, remainder;
   while (n != 0)
    {
        remainder = n % 10;
        rev = rev * 10 + remainder;
        n/= 10;

    }
print(rev);
}
```

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:

```c
#include<stdio.h>
int main()
{
    int count=0;
    int rev=0,remainder;
    count++;
    count++;
    int n;
    scanf("%d",&n);
    while(n!=0)
    {
        count++;
        remainder=n%10;
        count++;
        rev=rev*10+remainder;
        count++;
        n/=10;
        count++;

    }
    count++;
    //printf("%d",rev);
    printf("%d",count);
}
```

	Input	Expected	Got	
✔	12	11	11	✔
✔	1234	19	19	✔

Passed all tests! ✔