RAJALAKSHMI ENGINEERING COLLEGE

Started on	Wednesday, 6 August 2025, 11:04 AM
State	Finished
Completed on	Wednesday, 6 August 2025, 11:07 AM
Time taken	3 mins
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 %)

```
#include<stdio.h>
void function(int);
int count;
int main()
{
    int n;
    scanf("%d",&n);
    function(n);
    printf("%d",count);
}
void function (int 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.

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RAJALAKSHMI ENGINEERING COLLEGE

Started on	Wednesday, 6 August 2025, 11:07 AM
State	Finished
Completed on	Wednesday, 6 August 2025, 11:13 AM
Time taken	6 mins 22 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>
void function(int);
int count=0;
int main()
{
    int n;
    scanf("%d",&n);
    function(n);
    printf("%d",count);
}
void function(int n)
{
    if(n==1)
    {
        count++;
      //printf("*");
    }
    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++;
   }
 }
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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RAJALAKSHMI ENGINEERING COLLEGE

Started on	Wednesday, 6 August 2025, 11:14 AM
State	Finished
Completed on	Wednesday, 6 August 2025, 11:17 AM
Time taken	3 mins 18 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:

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

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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RAJALAKSHMI ENGINEERING COLLEGE

Started on	Wednesday, 6 August 2025, 11:17 AM
State	Finished
Completed on	Wednesday, 6 August 2025, 11:21 AM
Time taken	3 mins 28 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:

```
#include<stdio.h>
void function(int);
int count=0;
int main()
{
    int n;
    scanf("%d",&n);
    function(n);
    printf("%d",count);
}
void function(int n)
{
    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++;
}
```

	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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RAJALAKSHMI ENGINEERING COLLEGE

Started on	Wednesday, 6 August 2025, 11:21 AM
State	Finished
Completed on	Wednesday, 6 August 2025, 11:24 AM
Time taken	2 mins 41 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:

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

    }
    count++;
//print(rev);
count++;
}
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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