Problem 1: Finding Complexity using Counter Method

Started on	Thursday, 21 August 2025, 7:31 PM
State	Finished
Completed on	Thursday, 21 August 2025, 7:46 PM
Time taken	15 mins 2 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1

Correct Mark 1.00 out of 1.00 Flag question

Convert the following algorithm into a program and find its time complexity using the

```
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 pr

Input:

A positive Integer n

Output:

Print the value of the counter variable

For example:

Input	Result
9	12

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

int main() {
    int n;
    scanf("%d" , &n);
    int i=1, s=1;
    int counter=0;

    while (s<=n) {
        counter++;
        i++;
        counter++;
        s+=i;
        counter++;
    }
    counter+=3;
    printf("%d", counter);
    return 0;
}
```

	Input	Expected	Got	
✔	9	12	12	✔

✔	4	9	9	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Finish review

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Problem 2: Finding Complexity using Counter method

Started on	Thursday, 21 August 2025, 7:46 PM
State	Finished
Completed on	Thursday, 21 August 2025, 8:41 PM
Time taken	55 mins 7 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1

Correct Mark 1.00 out of 1.00 Flag question

Convert the following algorithm into a program and find its time complexity using the

```
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 pr

Input:

A positive Integer n

Output:

Print the value of the counter variable

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

void func(int n) {
    int counter=0;
    if(n==1) {
        counter++;
        // printf("*");
    }
    else {
        counter++;
        for(int i=1; i<=n; i++) {
            counter++;
            for(int j=1; j<=n; j++) {
                counter++;
                counter++;
                counter++;
                //printf("*");
                //printf("*");
                counter++;
                break;
            }
        }
    }
    counter++;
    printf("%d", counter);
}

int main() {
    int n;
    scanf("%d" ,&n);
    func(n);
```

```
32      return 0;
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.

Finish review

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Problem 3: Finding Complexity using Counter Method

Started on	Thursday, 21 August 2025, 8:41 PM
State	Finished
Completed on	Thursday, 21 August 2025, 8:47 PM
Time taken	5 mins 39 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1

Correct Mark 1.00 out of 1.00 Flag question

Convert the following algorithm into a program and find its time complexity using coun

```
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 p

Input:

A positive Integer n

Output:

Print the value of the counter variable

Answer:

```c
#include <stdio.h>

void factor (int num) {
    int counter=0;
    counter++;
    for (int i = 1; i <= num;++i) {
        counter++;
        if (num % i== 0) {
            //printf("%d ", i);
            counter++;
        }
    counter++;
    }
    printf("%d", counter);
}

int main() {
    int num;
    scanf("%d",&num);
    factor(num);
    return 0;
}
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Finish review

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Data retention summary

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Started on	Thursday, 21 August 2025, 8:47 PM
State	Finished
Completed on	Thursday, 21 August 2025, 8:54 PM
Time taken	7 mins 13 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>

void function(int n) {
    int counter=0;
    counter++;
    int c= 0;
    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++;
    printf("%d", counter);
}

int main() {
    int n;
    scanf("%d", &n);
    function(n);
    return 0;
}
```

	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	Thursday, 21 August 2025, 8:55 PM
State	Finished
Completed on	Thursday, 21 August 2025, 9:00 PM
Time taken	5 mins 36 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>

void reverse(int n) {
   int counter=0;
   counter++;
   int rev = 0;
   counter++;
   int remainde;
   while (n != 0)  {
       counter++;
       remainde = n % 10;
       counter++;
       rev = rev * 10 + remainde;
       counter++;
       n/= 10;
       counter++;
    }
    counter++;
    printf("%d", counter);
    // printf(rev);
}

int main() {
    int n;
    scanf("%d", &n);
    reverse(n);
    return 0;
}
```

	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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