Started on	Thursday, 8 August 2024, 10:44 AM
State	Finished
Completed on	Thursday, 8 August 2024, 11:06 AM
Time taken	21 mins 49 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 %)

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

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Jump to...

Problem 2: Finding Complexity using Counter meth

Started on	Thursday, 8 August 2024, 11:06 AM
State	Finished
Completed on	Thursday, 8 August 2024, 11:27 AM
Time taken	20 mins 24 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 n, count=0;
    scanf("%d", &n);
    count++;
    if (n==1)
    {
        count++;
        //printf("*");
    }
    else {
        for (int i=1; i<=n; i++)
            {
            count++;
            for (int j=1; j<=n; j++)
            {
                count++;
                //printf("*");
                //printf("*");
                count++;
                count++;
                break;
            }
            count++;
        }
        count++;
    }
    printf("%d", 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.

◀ Problem 1: Finding Complexity using Counter Method

Jump to...

Problem 3: Finding Complexity using Counter Meth

Started on	Thursday, 8 August 2024, 11:33 AM
State	Finished
Completed on	Thursday, 8 August 2024, 11:43 AM
Time taken	10 mins 34 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 n, count=0;
    scanf("%d", &n);
    for (int i=1; i<=n; ++i)
    {
        count++;
        count++;
        if (n%i==0) {
            count++;
            //printf("%d ", i);
        }
    }count++;
    printf("%d ", 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.

◀ Problem 2: Finding Complexity using Counter method

Jump to...

Problem 4: Finding Complexity using Counter Meth

Started on	Thursday, 8 August 2024, 11:45 AM
State	Finished
Completed on	Wednesday, 20 November 2024, 11:15 PM
Time taken	104 days 11 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:

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

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◀ Problem 3: Finding Complexity using Counter Method

Jump to...

Problem 5: Finding Complexity using counter meth

Started on	Friday, 9 August 2024, 8:05 AM
State	Finished
Completed on	Friday, 9 August 2024, 8:05 AM
Time taken	14 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 c=0;
    int rev=0,remainder;
    c++;
    while(n!=0)
    {
        c++;
        remainder=n%10;
        c++;
        rev=rev*10+remainder;
        c++;
        n=n/10;
        c++;
    }
    c++;
    c++;
    printf("%d",c);

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

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◀ Problem 4: Finding Complexity using Counter Method

Jump to...

1-G-Coin Probl