

**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 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 %)

```
1 #include <stdio.h>
2
3 void find(int n) {
4     int i = 1;
5     int s = 1;
6     int counter = 0;
7
8     counter = counter + 2;
9
10    while (s < n) {
11        counter++;
12
13        i++;
14        counter++;
15        s = s + i;
16        counter++;
```

9	12
---	----

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2
3 void find(int n) {
4     int i = 1;
5     int s = 1;
6     int counter = 0;
7
8     counter = counter + 2;
9
10    while (s < n) {
11        counter++;
12
13        i++;
14        counter++;
15        s = s + i;
16        counter++;
17    }
18
19    counter++;
20
21    printf("%d\n", counter);
22 }
23
24 int main() {
25     int n;
26     scanf("%d", &n);
27     find(n);
28     return 0;
29 }
```

	Input	Expected	Got	
✓	9	12	12	✓
✓	4	9	9	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[Finish review](#)

## Problem 2: Finding Complexity using Counter method

Started on Friday, 8 August 2025, 9:10 PM

State Finished

Completed on Friday, 8 August 2025, 9:21 PM

Time taken 11 mins

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 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 %)

```
1 #include <stdio.h>
2
3 void func(int n) {
4     int counter = 0;
5
6     counter = counter + 1;
7
8     if (n == 1) {
9     }
10    else {
11        counter = counter + 1;
12
13        for (int i = 1; i <= n; i++) {
14            counter = counter + 5;
15        }
16    }
17
18    printf("%d\n", counter);
19 }
20
21 int main() {
22     int n;
23     scanf("%d", &n);
24     func(n);
25     return 0;
26 }
```

	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 3: Finding Complexity using Counter Method

Started on	Friday, 8 August 2025, 9:22 PM
State	Finished
Completed on	Friday, 8 August 2025, 9:32 PM
Time taken	10 mins 31 secs
Marks	1.00/1.00
Grade	<b>10.00</b> 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 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

**Output:**

Print the value of the counter variable

**Answer:**

```
1 #include <stdio.h>
2
3 void Factor(int num) {
4     int counter = 0;
5     for (int i = 1; i <= num; i++) {
6         counter++;
7         counter++;
8         if (num % i == 0) {
9             counter++;
10        }
11    }
12    counter++;
13    printf("%d\n", counter);
14 }
15
16 int main() {
17     int n;
18     scanf("%d", &n);
19     Factor(n);
20     return 0;
21 }
22
```

	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](#)

## Problem 4: Finding Complexity using Counter Method

Started on	Friday, 8 August 2025, 9:34 PM
State	Finished
Completed on	Tuesday, 19 August 2025, 12:53 PM
Time taken	10 days 15 hours
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 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:**

A positive Integer n  
**Output:**  
Print the value of the counter variable

**Answer:**

```
1 #include <stdio.h>
2
3 void function(int n) {
4     int c = 0;
5     int count = 1;
6
7     for (int i = n/2; i < n; i++) {
8         count++;
9         for (int j = 1; j < n; j=2 * j) {
10            count++;
11            for (int k = 1; k < n; k = k * 2) {
12                count++;
13                c++;
14                count++;
15            }
16            count++;
17        }
18        count++;
19    }
20    count++;
21    printf("%d\n", count);
22 }
23
24 int main() {
25     int n;
26     scanf("%d", &n);
27     function(n);
28     return 0;
29 }
```

	Input	Expected	Got	
✓	4	30	30	✓
✓	10	212	212	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

## Problem 5: Finding Complexity using counter method

Started on	Sunday, 17 August 2025, 8:11 PM
State	Finished
Completed on	Sunday, 17 August 2025, 8:21 PM
Time taken	10 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  [Flag question](#)

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

**Input:**  
A positive Integer n  
**Output:**  
Print the value of the counter variable

**Answer:**

```
1 #include <stdio.h>
2
3 void reverse(int n) {
4     int rev = 0, remainder;
5     int count = 3;
6
7     while (n != 0) {
8         remainder = n % 10;
9         count++;
10        rev = rev * 10 + remainder;
11        count += 2;
12        n /= 10;
13        count++;
14    }
15
16    printf("%d\n", count);
17 }
18
19 int main() {
20     int n;
21     scanf("%d", &n);
22     reverse(n);
23     return 0;
24 }
```

	Input	Expected	Got	
✓	12	11	11	✓
✓	1234	19	19	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[Finish review](#)

