

Opened: Wednesday, 24 September 2025, 10:07 AM

Closed: Friday, 10 October 2025, 3:18 PM

Attempts allowed: 3

Grading method: Highest grade

Summary of your previous attempts

Attempt	State	Review
1	Finished Submitted Thursday, 21 August 2025, 8:56 PM	Not permitted

[Back to the course](#)

[Back to Course](#)

Problem 2: Finding Complexity using Counter method

Started on	Thursday, 21 August 2025, 8:58 PM
State	Finished
Completed on	Thursday, 21 August 2025, 9:09 PM
Time taken	11 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  [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)
    {

```

CONVERT THE FOLLOWING ALGORITHM INTO A PROGRAM AND TIME 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=i; 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 int c=0;
3 void function(int n){
4     c++;
5     if(n==1)
6     {
7     }
8     else
9     {
10    for(int i=1; i<=n; i++)
11    {
12        c++;
13        c++;
14        for(int j=1; j<=n;j++)
15        {
16            c++;
17            c++;
18            break;
19        }
20        c++;
21    }
22    c++;
23 }
24 }
25 }
26 int main()
27 {
28     int n;
29     scanf("%d",&n);
30     c=0;
31     function(n);
32     printf("%d\n",c);
33     return 0;
34 }
35 }
```

	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	Thursday, 21 August 2025, 9:13 PM
State	Finished
Completed on	Thursday, 21 August 2025, 9:25 PM
Time taken	12 mins 30 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.

```
Factor(num) {  
    for (i = 1; i <= num; ++i)  
    {  
        if (num % i == 0)
```

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:

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

	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 4: Finding Complexity using Counter Method

Started on	Thursday, 21 August 2025, 9:39 PM
State	Finished
Completed on	Thursday, 21 August 2025, 9:47 PM
Time taken	7 mins 55 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 function(int n)
{
    int c= 0;
    for(int i=n/2; i<n; i++)
```

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

```

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

```

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

Problem 5: Finding Complexity using counter method

Started on Thursday, 21 August 2025, 9:47 PM

State	Finished
Completed on	Thursday, 21 August 2025, 9:49 PM
Time taken	2 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 counter method.

```
void reverse(int n)
{
    int rev = 0, remainder;
    while (n != 0)
    {
        remainder = n % 10;
        rev = rev * 10 + remainder;
```

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:

```
1 #include<stdio.h>
2 int c=0;
3 void reverse(int n) {
4     int rev = 0, remainder = 0;
5     c++;
6     c++;
7     while (n != 0) {
8         remainder = n % 10;
9         c++;
10        rev = rev * 10 + remainder;
11        c++;
12        n /= 10;
13        c++;
14        c++;
15    }
16    c++;
17    printf("%d", c);
18 }
19
20 int main() {
21     int n;
22     scanf("%d", &n);
23     reverse(n);
24     return 0;
25 }
26
```

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