

THIRUMALASRI P 2024-CSE ▾**T2****Started on** Wednesday, 13 August 2025, 3:33 PM**State** Finished**Completed on** Saturday, 16 August 2025, 10:28 PM**Time taken** 3 days 6 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 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 void function (int n){
3     int count =1;
4     int i=1;
5     count++;
6     int s=1;
7     count++;
8     while(s<=n)
9     {
10         count++;
11         count++;
12         count++;
13         i++;
14         s+=i;
15     }
16
17     printf("%d",count);
18 }int main(){
19     int n;
20     scanf("%d",&n);
21     function(n);
22     return 0;
23 }
```

	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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THIRUMALASRI P 2024-CSE ▾**T2****Started on** Tuesday, 19 August 2025, 7:42 PM**State** Finished**Completed on** Tuesday, 19 August 2025, 7:53 PM**Time taken** 10 mins 59 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 %)

```
1 #include <stdio.h>
2 void func(int n, int *counter) {
3     if (n == 1) {
4         printf("*");
5         (*counter)++;
6     } else {
7         for (int i = 1; i <= n; i++) {
8             (*counter)++;
9             for (int j = 1; j <= n; j++) {
10                 (*counter)++;
11                 (*counter)++;
12                 (*counter)++;
13                 (*counter)++;
14                 (*counter)++;
15                 break;
16             }
17             (*counter)++;
18         }
19         (*counter)++;
20     }
21 }
22 int main() {
23     int n;
24     scanf("%d", &n);
25     int counter = 1;
26     func(n, &counter);
27     printf("%d\n", counter);
28     return 0;
29 }
30
```

	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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 **THIRUMALASRI P 2024-CSE** ▾**T2****Started on** Saturday, 16 August 2025, 10:34 PM**State** Finished**Completed on** Saturday, 23 August 2025, 6:13 PM**Time taken** 6 days 19 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.

```
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
2 #include <stdio.h>
3
4 int counter = 0;
5
6 void Factor(int num) {
7     counter++;
8     for (int i = 1; i <= num; ++i) {
9         counter++;
10        if (num % i == 0) {
11            counter++;
12
13            }counter++;
14        }
15
16
17
18 }
19
20
21 int main() {
22     int n;
23
24     scanf("%d", &n);
25
26     Factor(n);
27     printf("%d\n", counter);
28
29     return 0;
30 }
31
32 }
```

	Input	Expected	Got	
✓	12	31	31	✓
✓	25	54	54	✓

	Input	Expected	Got	
✓	4	12	12	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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THIRUMALASRI P 2024-CSE ▾**T2****Started on** Tuesday, 19 August 2025, 8:11 PM**State** Finished**Completed on** Sunday, 31 August 2025, 11:59 AM**Time taken** 11 days 15 hours**Marks** 0.00/1.00**Grade** **0.00** out of 10.00 (0%)

Question 1 | Incorrect Mark 0.00 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:

```
1 #include <stdio.h>
2 int c=0;
3 void function(int n) {
4     c++;
5     c++;
6     for (int i = n / 2; i < n; i++) {
7         c++;
8
9         for (int j = 1; j < n; j = j * 2) {
10            c++;
11
12            for (int k = 1; k < n; k = k * 2) {
13                c++;
14                }c++;
15                c++;
16            }c++;
17            c++;
18        }c++;
19        c++;
20
21    }
22
23
24 int main() {
25     int n;
26     scanf("%d", &n);
27     function(n);
28     printf("%d\n", c);
29     return 0;
30 }
31
32
33
34
35
36
37
```

	Input	Expected	Got	
✓	4	30	30	✓
✗	10	212	159	✗

Your code must pass all tests to earn any marks. Try again.

Show differences

Incorrect

Marks for this submission: 0.00/1.00.

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 **THIRUMALASRI P 2024-CSE** ▾**T2****Started on** Saturday, 23 August 2025, 6:31 PM**State** Finished**Completed on** Saturday, 23 August 2025, 6:38 PM**Time taken** 7 mins 11 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:

```
1 #include <stdio.h>
2
3 int counter = 0;
4 void reverse(int n) {
5     counter++;
6     int rev = 0, remainder;
7     counter++;
8     while (n != 0) {
9         counter++;
10        remainder = n % 10;
11        counter++;
12        rev = rev * 10 + remainder;
13        counter++;
14        n /= 10;
15        counter++;
16    }
17    counter++;
18 }
19
20
21 int main() {
22     int n;
23
24     scanf("%d", &n);
25
26     reverse(n);
27     printf("%d\n", counter);
28
29     return 0;
30 }
```

	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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