



**Started on** Wednesday, 6 August 2025, 8:29 AM

**State** Finished

**Completed on** Wednesday, 6 August 2025, 8:47 AM

**Time taken** 17 mins 26 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 %)

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

	Input	Expected	Got	
	9	12	12	
	4	9	9	

Passed all tests! |

**Correct**

Marks for this submission: 1.00/1.00.

[Back to Course](#)



7

□

**Started on** Wednesday, 6 August 2025, 8:47 AM

**State** Finished

**Completed on** Wednesday, 6 August 2025, 9:09 AM

**Time taken** 22 mins 17 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 int main(){
3     int n;
4     scanf("%d",&n);
5     int count=0;
6     if(n==1){
7     }
8     else{
9         count++;
10        count+=(n+1);
11        count+=n;
12        count+=2*n;
13        count+=n;
14        }
15        printf("%d\n",count);
16    }
17 }
```

	Input	Expected	Got	
	2	12	12	
	1000	5002	5002	

	Input	Expected	Got	
	143	717	717	

Passed all tests! [

Correct

Marks for this submission: 1.00/1.00.

[Back to Course](#)



**Started on** Wednesday, 13 August 2025, 8:37 AM

**State** Finished

**Completed on** Wednesday, 13 August 2025, 8:43 AM

**Time taken** 5 mins 32 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:**

```
1 #include<stdio.h>
2▼ int main(){
3     int n;
4     scanf("%d",&n);
5     int c=0;
6▼     for(int i=1;i<=n;i++){
7         c+=2;
8▼         if(n%i==0){
9             c++;
10            }
11            c++;
12            printf("%d",c);
13        }
14 }
```

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

Passed all tests! |

Correct

Marks for this submission: 1.00/1.00.

[Back to Course](#)



□

**Started on** Wednesday, 13 August 2025, 8:43 AM

**State** Finished

**Completed on** Wednesday, 20 August 2025, 8:26 AM

**Time taken** 6 days 23 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.

```
voidfunction(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 main() {
3     int n,counter=0,c=0;
4     scanf("%d",&n);
5     counter++;
6▼     for(int i=n/2;i<n;i++){
7         counter++;
8▼         for(int j=1;j<n;j=2*j){
9             counter++;
10▼             for(int k=1;k<n;k=k*2){
11                 counter++;
12                 c++;
13                 counter++;
14             }
15             counter++;
16         }
17         counter++;
18     }
19     counter++;
20     printf("%d",counter);
21 }
22 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
	4	30	30	
	10	212	212	

Passed all tests! [

Correct

Marks for this submission: 1.00/1.00.

[Back to Course](#)



□

**Started on** Wednesday, 20 August 2025, 8:26 AM

**State** Finished

**Completed on** Wednesday, 20 August 2025, 8:31 AM

**Time taken** 4 mins 57 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▼ int main(){
3     int n,c=0;
4     scanf("%d",&n);
5     int rev=0,rem;
6     c++;
7     c++;
8▼     while(n!=0){
9         c++;
10        rem=n%10;
11        c++;
12        rev=rev*10+rem;
13        c++;
14        n/=10;
15        c++;
16    }
17    c + + ;
18    p r i n t f ( " % d " , c ) ;
19 }
```

	Input	Expected	Got	
12	11	11	11	
1234	19	19	19	

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

[Back to Course](#)