



**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](#)



**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      }
9      else{
10         count++;
11         count+=(n+1);
12         count+=n;
13         count+=2*n;
14         count+=n;
15     }
16     printf("%d\n",count);
17 }
18 }
```

	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         }
12         c++;
13         printf("%d",c);
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.

```
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 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
```

	Input	Expected	Got	
	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	
	1234	19	19	

Passed all tests! |

Correct

Marks for this submission: 1.00/1.00.

[Back to Course](#)