

SABITHA R 2024-CSE**S2****Started on** Tuesday, 26 August 2025, 9:11 PM**State** Finished**Completed on** Wednesday, 27 August 2025, 10:09 AM**Time taken** 12 hours 58 mins**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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
#include <stdio.h>

int main() {
    int n;
    scanf("%d", &n);

    int i = 1, s = 1;
    int count = 0;
    count++;
    count++;

    while (s <= n) {
        count++;
        i++;
        count++;
        s += i;
        count++;
    }
    count++;
}
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[Back to Course](#)

SABITHA R 2024-CSE**S2****Started on** Tuesday, 26 August 2025, 9:28 PM**State** Finished**Completed on** Wednesday, 27 August 2025, 10:19 AM**Time taken** 12 hours 51 mins**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
3 int main() {
4     int n;
5     scanf("%d", &n);
6
7     int count = 0;
8
9     if (n == 1) {
10         count++;
11     } else {
12         count++;
13         for (int i = 1; i <= n; i++) {
14             count++;
15
16             for (int j = 1; j <= n; j++) {
17                 count++;
18                 count++;
19                 count++;
20
21                 break;
22             }
23
24             count++;
25         }
26         count++;
27     }
28 }
```

```
29     printf("%d\\n", count);
30 }
31
32
33
34
35
36
37
38
39
40
41
42
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	2	12	12	✓
✓	1000	5002	5002	✓
✓	143	717	717	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[Back to Course](#)

SABITHA R 2024-CSE**S2****Started on** Wednesday, 27 August 2025, 10:17 AM**State** Finished**Completed on** Wednesday, 27 August 2025, 10:17 AM**Time taken** 49 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
3 int main() {
4     int n;
5     scanf("%d", &n);
6
7     int count = 0;
8
9     for (int i = 1; i <= n; i++) {
10         count++;
11         if (n % i == 0) {
12             count++;
13         }
14         count++;
15     }
16     count++;
17
18     printf("%d\n", count);
19     return 0;
20 }
21
```

	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](#)

SABITHA R 2024-CSE**S2****Started on** Wednesday, 27 August 2025, 10:22 AM**State** Finished**Completed on** Wednesday, 27 August 2025, 10:22 AM**Time taken** 23 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 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
3 int main() {
4     int n;
5     scanf("%d", &n);
6
7     int count = 0;
8     int c = 0;
9     count++;
10
11    for (int i = n / 2; i < n; i++) {
12        count++;
13        for (int j = 1; j < n; j = 2 * j) {
14            count++;
15            for (int k = 1; k < n; k = k * 2) {
16                count++;
17                c++;
18                count++;
19            }
20            count++;
21        }
22        count++;
23    }
24    count++;
25
26    printf("%d\n", count);
27    return 0;
28 }
29
```

	Input	Expected	Got	
✓	4	30	30	✓

	Input	Expected	Got	
✓	10	212	212	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[Back to Course](#)

SABITHA R 2024-CSE**S2****Started on** Wednesday, 27 August 2025, 10:24 AM**State** Finished**Completed on** Wednesday, 27 August 2025, 10:24 AM**Time taken** 27 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 main() {
4     int n;
5     scanf("%d", &n);
6
7     int rev = 0, remainder;
8     int count = 0;
9     count++;
10
11    while (n != 0) {
12        count++;
13        remainder = n % 10;
14        count++;
15        rev = rev * 10 + remainder;
16        count++;
17        n = n / 10;
18        count++;
19    }
20
21    count++;
22    count++;
23
24    printf("%d\n", count);
25    return 0;
26}
27
```

	Input	Expected	Got	
✓	12	11	11	✓

	Input	Expected	Got	
✓	1234	19	19	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[Back to Course](#)