



6

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 }
24
```

	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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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             }
12             (*counter)++;
13             (*counter)++;
14             break;
15         }
16         (*counter)++;
17     }
18     (*counter)++;
19 }
20
21 int main() {
22     int n;
23     scanf("%d",&n);
24     int counter = 1;
25     func(n, &counter);
26     printf("%d\n", counter);
27     return 0;
28 }
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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6 **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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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 }
31
```

	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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