RAJALAKSHMI ENGINEERING COLLEGE

MANISHA M 2024-CSE

M2

| | |
|---|---|
| **Started on** | Wednesday, 13 August 2025, 9:39 PM |
| **State** | Finished |
| **Completed on** | Wednesday, 13 August 2025, 9:45 PM |
| **Time taken** | 5 mins 36 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 %)

```c
#include<stdio.h>
int main(){
    int i,s,count=0,n;
    count++;
    scanf("%d",&n);
    count++;
    i=1;
    s=1;
    while(s<=n){
        count++;
        i++;
        count++;
        s+=i;
        count++;
    }
    count++;
    printf("%d",count);
}
```

| | 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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RAJALAKSHMI ENGINEERING COLLEGE

MANISHA M 2024-CSE

M2

| | |
|---|---|
| **Started on** | Wednesday, 13 August 2025, 9:45 PM |
| **State** | Finished |
| **Completed on** | Wednesday, 13 August 2025, 9:51 PM |
| **Time taken** | 6 mins 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 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 %)

```
#include<stdio.h>
int main(){
    int n,c=0;
    c++;
    scanf("%d",&n);
    if(n==1)
    {
        c++;

    }
    else
    {
     for(int i=1; i<=n; i++)
     {
         c++;
       for(int j=1; j<=n; j++)
       {
           c++;
           c++;

          c++;

           c++;
           break;
       }
     }
   }
   c++;
   printf("%d",c);

}
```

| | 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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MANISHA M 2024-CSE

M2

| | |
|---|---|
| **Started on** | Wednesday, 13 August 2025, 9:52 PM |
| **State** | Finished |
| **Completed on** | Wednesday, 13 August 2025, 10:01 PM |
| **Time taken** | 8 mins 58 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:**

```
#include<stdio.h>
int main(){
    int i,num,c=0;
    scanf("%d",&num);
    for (i = 1; i <= num;++i)
    {
        c++;
        c++;
     if (num % i== 0)
        {
            c++;

        }
     }
     c++;
     printf("%d",c);
     return 0;
}
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 12 | 31 | 31 | ✔ |
| ✔ | 25 | 54 | 54 | ✔ |
| ✔ | 4 | 12 | 12 | ✔ |

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

RAJALAKSHMI ENGINEERING COLLEGE

MANISHA M 2024-CSE

M2

| | |
|---|---|
| **Started on** | Wednesday, 13 August 2025, 10:02 PM |
| **State** | Finished |
| **Completed on** | Wednesday, 13 August 2025, 10:18 PM |
| **Time taken** | 16 mins 3 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:**

```
#include<stdio.h>
int main()
{
    int n, c = 0, count = 0;
    count++;
    scanf("%d", &n);

    for(int i = n / 2; i < n; i++) {
        count++;
        count++;

        for(int j = 1; j < n; j = 2 * j) {
            count++;
            count++;

            for(int k = 1; k < n; k = k * 2) {
                count++;
                count++;
                c++;

            }
        }
    }

    count++;
    printf("%d", count);
    return 0;
}
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 4 | 30 | 30 | ✔ |
| ✔ | 10 | 212 | 212 | ✔ |

Passed all tests! ✔

RAJALAKSHMI ENGINEERING COLLEGE

MANISHA M 2024-CSE

M2

| | |
|---|---|
| **Started on** | Wednesday, 13 August 2025, 10:19 PM |
| **State** | Finished |
| **Completed on** | Wednesday, 13 August 2025, 10:31 PM |
| **Time taken** | 11 mins 58 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:**

```c
#include <stdio.h>

int main() {
    int n, rev = 0, remainder;
    int count = 0;
    count++;
    scanf("%d", &n);
    count++;
    while (n != 0) {
        count++;

        remainder = n % 10;
        count++;

        rev = rev * 10 + remainder;
        count++;
        n /= 10;
        count++;
    }

    count++;

    printf("%d\n", count);
    return 0;
}
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 12 | 11 | 11 | ✔ |
| ✔ | 1234 | 19 | 19 | ✔ |

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.