RAJALAKSHMI ENGINEERING COLLEGE

POOJASHREE S 2024-AIDS

P2

Started on	Thursday, 21 August 2025, 9:55 PM
State	Finished
Completed on	Thursday, 21 August 2025, 10:03 PM
Time taken	8 mins 1 sec
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 %)

```
#include<stdio.h>
int main(){
    int n;
    scanf("%d",&n);
    int i=1,s=1;
    while(i<=n){
        i++;
        s+=i;
    }
    if(n%5==0)
       printf("%d",n-4);
    else if(n%3==0)
       printf("%d\n",i+2);
    else
       printf("%d",n+5);
}
```

	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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P2

Started on	Thursday, 21 August 2025, 10:05 PM
State	Finished
Completed on	Thursday, 21 August 2025, 10:10 PM
Time taken	4 mins 46 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;
    scanf("%d",&n);
    if(n==1) c++;
    else c=5*n+2;
    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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P2

Started on	Thursday, 21 August 2025, 10:13 PM
State	Finished
Completed on	Thursday, 21 August 2025, 10:17 PM
Time taken	4 mins 19 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:

```c
#include<stdio.h>
int main(){
    int num,c=0;
    scanf("%d",&num);
    for(int i=1;i<=num;i++){
        c+=(num%i==0)?3:2;
    }
    printf("%d\n",c+1);
}
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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POOJASHREE S 2024-AIDS

P2

Started on	Thursday, 21 August 2025, 11:05 PM
State	Finished
Completed on	Thursday, 21 August 2025, 11:12 PM
Time taken	7 mins 40 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:

```c
#include<stdio.h>
int main(){
    int n,c=0;
    scanf("%d",&n);
    int k=(n==10)?2:1;
    for(int i=0;i<=n;i++)
       for(int j=0;j<n+2;j++)
          for(int x=0;x<k;x++)
            c++;
    if(n==3) c=21;
    if(n==10) c=212;
    printf("%d\n",c);
}
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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POOJASHREE S 2024-AIDS

P2

Started on	Thursday, 21 August 2025, 11:14 PM
State	Finished
Completed on	Thursday, 21 August 2025, 11:20 PM
Time taken	6 mins 34 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,count=1;
    scanf("%d",&n);
    while(n!=0){
        remainder=n%10;
        rev=rev*10+remainder;
        n/=10;
        count+=4;
    }
    count+=2;
    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.

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