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.

```c
#include<stdio.h>
void function (int n)
{
    int i=1;
    int s=1;
    while(s<=n)
    {
        i++;
        s+=i;
    }
     printf("%d",3*i);
}
int main()
{
    int n;
    scanf("%d",&n);
    function(n);
}
```

	Input	Expected	Got	
✔	9	12	12	✔
✔	4	9	9	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Back to Course

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

	Input	Expected	Got	
✔	2	12	12	✔
✔	1000	5002	5002	✔

	Input	Expected	Got	
✔	143	717	717	✔

Passed all tests! ✔

<div style="border:1px solid #888; display:inline-block; padding:4px 10px;">Correct</div>

Marks for this submission: 1.00/1.00.

Back to Course

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 count=0;
6  for (int i=1;i<=n;i++) {
7          count++;
8          count++;
9          if (n%i==0) {
10              count++;
11          }
12      }
13      count++;
14      printf("%d\n",count);
15      return 0;
16 }
17
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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;
 4      scanf("%d",&n);
 5      int c=0;
 6      counter++;
 7      for(int i=n/2;i<n;i++){
 8          counter++;
 9          for(int j=1;j<n;j=2*j){
10          counter++;
11          for(int k=1;k<n;k=k*2)
12          {
13              counter++;
14              c++;
15              counter++;
16          }
17          counter++;
18          }
19          counter++;
20      }
21      counter++;
22      printf("%d", counter);
23  }
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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;
4      scanf("%d",&n);
5      int count=0;
6      int rev=0,remainder;
7      count+=3;
8      while (n!=0) {
9          count++;
10         remainder=n%10;
11         count++;
12         rev=rev*10+remainder;
13         count++;
14         n/=10;
15         count++;
16     }
17     printf("%d\n",count);
18     return 0;
19 }
20
21
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.