

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 | void Factor(int num)
4 | {
5 |     int c=0;
6 |     for (int i = 1; i <= num;++i)
7 |     {
8 |         c++;
9 |         if (num % i== 0)
10 |        {
11 |            c++;
12 |            //printf("%d ", i);
13 |
14 |        }
15 |        c++;
16 |    } c++;
17 |    printf("%d",c);
18 | }
19 | int main(){
20 |     int n;
21 |     scanf("%d",&n);
22 |     Factor(n);
23 | }
24 |
25 |
26 |
```

	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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