CS23331-Design and Analysis of Algorithms-2023 Batch-CS

Quiz navigation

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Finish review

Status	Finished
Started	Sunday, 23 February 2025, 2:36 PM
Completed	Sunday, 23 February 2025, 4:34 PM
Duration	1 hour 58 mins
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

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>
void factor (int num)
{
    int count=0;
    for( int i=1;i<=num;++i)
    {
        count++;
        if(num%i==0)
        {
           count++;
           // printf("%d",i);

        }
      count++;
    }
    count++;
    printf("%d",count);
}
int main()
{
    int num;
    scanf("%d",&num);
    factor(num);
    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.

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◄ Problem 2: Finding Complexity using Counter method

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Problem 4: Finding Complexity using Counter Method ►