

## VIT - Vellore

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### BCSE102P\_Structured and Object Oriented Programming Lab\_VL2024250502354

#### VIT V\_Structured and OOP\_Lab 5\_COD\_Easy\_Call by reference

Attempt : 1  
Total Mark : 20  
Marks Obtained : 20

#### Section 1 : Coding

##### 1. Problem Statement

Taylor wants a program to calculate the sum of all divisors of a given integer. The program should take an integer N as input and, using call by reference, compute and display the sum of divisors.

Assist Taylor in implementing the program using a call-by-reference function.

##### **Answer**

```
#include<iostream>
using namespace std;
class divisor{
public:
```

```

int find(int n){
    int count=0;
    for(int i=1;i<=n;i++){
        if(n%i==0){
            count+=i;
        }
    }
    cout<<count;
    return 0;
}
};
int main(){
    int n;
    cin>>n;
    divisor q;
    q.find(n);
    return 0;
}

```

**Status :** Correct

**Marks :** 10/10

## 2. Problem statement

Mandy wants to calculate the factorial of a number and the sum of its digits. Help her with a program for the same using a call-by-reference function.

Write a program that takes an integer as input and computes both the factorial and the sum of its digits.

**Answer**

```

#include<iostream>
using namespace std;
class fact1{
public:
    int fact2=1;
    int fact(int n){
        for(int i=1;i<=n;i++){
            fact2*=i;
        }
    }
}

```

```
        cout<<"Factorial: "<<fact2<<endl;
        int k=fact2;
        int sum=0;
        while(k>=1){
            sum+=k%10;
            k=k/10;
        }
        cout<<"Sum of digits of the factorial: "<<sum;
        return 0;
    }

};
int main(){
    int n;
    cin>>n;
    fact1 u;
    u.fact(n);
    return 0;
}
```

**Status :** Correct

**Marks : 10/10**