Sri Krishna College of Technology

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Batch :2022-26   Degree :B.E - Cyber Secirity

2022_26_I_Problem Solving using CPP_IRC

2026_DailyChallenge_Operator_CPP

Attempt : 1
Total Mark : 140
Marks Obtained : 120

Section 1 : Coding

1.   Tickets sold for Charity Event

HelpIndia, a famous NGO has been selective in identifying events to raise funds for charity. Suzanne is a volunteer from the NGO who was selling tickets to the public for the charity event. She sold 'X' more adult tickets than children tickets and she sold twice as many senior tickets as children tickets. Assume that an adult ticket costs $5, children ticket costs $2 and senior ticket costs $3.

 Suzanne made 'Y' dollars from ticket sales. Find the number of adult tickets, children tickets, and senior tickets sold.

Answer

```
// You are using GCC
#include<iostream>
using namespace std;
int main()
{
    int a,ta,ct,at,st;
    cin>>a>>ta;//child tickets sold
```

```
    ct=(ta/4)-a;
    at=ct+a;
    st=2*ct;


    cout<<"Number of children tickets sold : "<<ct<<endl;
    cout<<"Number of adult tickets sold : "<<at<<endl;
    cout<<"Number of senior tickets sold : "<<st<<endl;


    return 0;


}
```

Status : Wrong   *Marks : 0/20*

2.   Birthday Challenge

Louis was celebrating his 10th Birthday and his parents wished to make his birthday more special by throwing a surprise bash, inviting all their friends, relatives and neighbors. The little mathematics geek Louis has another surprise waiting for him when he had to cut his favorite Choco vanilla cake. The cake is a rectangular cake and it consists of m×n (1≤m, n≤1000) squares. His friends now called him out for a challenge.

The challenge is that, Louis has to break the cake up into 1×1 pieces (individual squares) and find what is the minimum number of times that he breaks the choco vanilla cake, or pieces thereof, in order to achieve this?

Note that he cannot stack pieces of the cake and break them, because the choco vanilla cake is thick. As an example, a 2×2 cake requires 3 breaks. First he can break it in half, then break each of the halves in half. He cannot break it in half, stack the two 1×2 pieces, and then use only one more break to achieve his goal.

Answer

```cpp
// You are using GCC
#include<iostream>
using namespace std;
int main()
{
    int i,j,area,br;

    cin>>i>>j;
    area=i*j;

    br=area-1;

    cout<<br;


    return 0;


}
```

Status : Correct   *Marks : 20/20*

3.   Food Festival at HillTown

HillTown Inn is planning to organize a Food Festival bringing together at one place, a wide variety of cuisines from across the world on account of Christmas. The Hotel Management has rented out a square hall of an indoor Auditorium for this extravaganza. The side of the square hall is y inches in which a large square table is placed for the display of the most popular and celebrated food items. The side of the square table is x inches, such that x<y.

The Management wanted to fill the remaining floor area with a decorative carpet. To get this done, they needed to know the floor area to be filled with the carpet. Write a program to help the Management find the area of the region located outside the square table, but inside the square hall.

Answer

```cpp
// You are using GCC
#include<iostream>
using namespace std;
int main()
{
    int y,x,area,carpet,bal;
    cin>>y>>x;
    area=y*y;
    carpet=x*x;
    bal=area-carpet;

    cout<<bal;
    return 0;

}
```
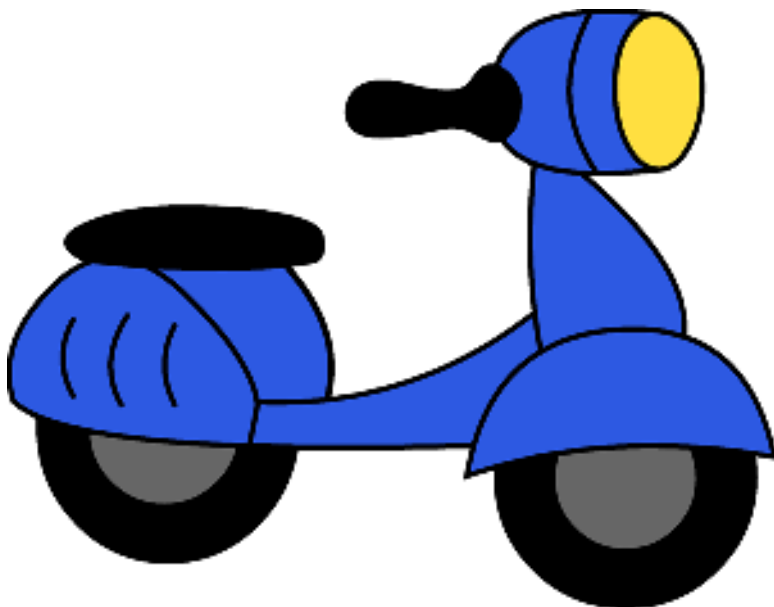
Status : Correct   *Marks : 40/40*

4.   Calculating Gain Percentage

Vikram buys an old scooter for Rs. A and spends Rs. B on its repairs. If he sells the scooter for Rs. C, what is his gain %?

Write a program to compute the gain %.

Answer

```cpp
// You are using GCC
#include<iostream>
#include<iomanip>
using namespace std;
int main()
{
    float a,b,c,p,d,per;
    cin>>a>>b>>c;
    p=a+b;
    d=c-p;//profit amount
    per=d*100/p;
    cout<<fixed<<setprecision(2)<<per;
    return 0;
}
```

Status : Correct   *Marks : 60/60*