

Write a program that can convert the Distance (meter, centimeter) to meters measurement in float and vice versa. Make a class distance with two data members, meter and centimeter. You can add function members as per your requirement.

```
#include <iostream>
#define SUCCESS 0
using namespace std;
class Distance{
    int meter;
    int centimeter;
public:
    Distance(int m,int cm):meter(m),centimeter(cm){};
    Distance(float no)
    {
        meter=no;
        centimeter=(no-int(no))*100;
    }
    operator float()
    {
        return float(meter) + float(centimeter)/100.0;
    }
    Distance operator+(Distance a)
    {
        return
        Distance(meter+a.meter+(centimeter+a.centimeter)/100,(centimeter+a.centimeter)%
        100);
    }
    void display()
    {
        cout << meter << " m " << centimeter << "cm" << endl;
    }
};
int main()
{
    Distance d(10.34);
    d.display();
    cout << "Distance typecasting to float ";
    cout << d << endl;
    Distance c(10,6);
    Distance s = d+c;
```

```

    cout << "addition of two distances" << endl;
    d.display();
    c.display();
    cout << "Gives";
    s.display();
    return SUCCESS;
}

```

```

#include<iostream>//or
using namespace std;
class distanc
{
    float meter ,centimeter;
public:
    distanc(float m,float cm)
    {
        meter=m;
        centimeter=cm;
    }
    distanc(float m)
    {
        meter=m;
        centimeter=0;
    }
    operator float()
    {
        return (meter+(centimeter/100));
    }
    void display()
    {
        int m;
        float c;
        m=static_cast<int>(meter);
        c=(meter-m)*100;
        cout<<m<<" meter , "<<c<<" centimeter"<<endl;
    }
};
int main()
{
    distanc d1(2.1,56.5),d2(.563);

```

```
float disp;  
d2.display();  
disp=d1;  
cout<<"meter = "<<d1;  
}
```