#**Prathamesh** **Nagargoje**

#include <iostream>

using namespace std;

class complex {

   private:

      float real;

      float img;

   public:

      complex()

    {

         real = 0;

         img = 0;

        }

      complex(float r, float i)

    {

         real = r;

         img = i;

        }

complex operator + (complex c)

{

complex temp;

temp.real=real+c.real;

temp.img=img+c.img;

return temp;

}

complex operator \* (complex c)

{

complex temp;

temp.real=real\*c.real-img\*c.img;

temp.img=real\*c.img+img\*c.real;

return temp;

}

 friend ostream &operator<<( ostream &out, complex c );  //u can have argument as    complex c   OR    complex &c

 friend istream &operator>>( istream  &in, complex &c );  //u must have argument as complex &c

};

ostream &operator<<( ostream &out, complex c )

 {

         out <<c.real << "+" << c.img<<"i";

         return out;

 }

istream &operator>>( istream  &in, complex &c )

{

         in >> c.real >> c.img;

         return in;

}

int main()

{

complex c1,c2,c3,c4;

cout<<"Enter real & imaginary part for complex no 1 : ";

cin>>c1;

cout<<"Enter real & imaginary part for complex no 2 : ";

cin>>c2;

cout<<"\nComplex no 1 is : "<<c1;

cout<<"\nComplex no 2 is : "<<c2;

c3=c1+c2;

cout<<"\nAddition of Complex no is : "<<c3;

c4=c1\*c2;

cout<<"\nMultiplication of Complex no is : "<<c4<<endl;

return 0;

}

**Output**:

Enter real & imaginary part for complex no 1 : 7

9

Enter real & imaginary part for complex no 2 : 9

9

Complex no 1 is : 7+9i

Complex no 2 is : 9+9i

Addition of Complex no is : 16+18i

Multiplication of Complex no is : -18+144i