```
#include<iostream>
using namespace std;


class complex
{
float real,imag;
public:
complex(){
real = 0;
imag=0;
}
void accept();
void display();
complex operator+(complex); //member function
friend complex operator*(complex,complex); //friend function
};


void complex :: accept()
{
cout << "Enter real no : ";
cin >> real;
cout << "Enter imaginary no : ";
cin >> imag;
}

void complex :: display()
{
cout << "Complex number is : " << real << " + " << imag <<"i"<<"\n";
}

complex complex::operator+(complex c) //ret type classname::operator op(argument)
{
        complex temp;
        temp.real=real+c.real;
        temp.imag=imag+c.imag;
        return temp;
}

complex operator*(complex c, complex d)
{
        complex temp;
        temp.real=c.real*d.real - c.imag*d.imag;
```

```
        temp.imag=c.real*d.imag + c.imag*d.real;
        return temp;
}



int main(){
complex c1,c2,c3;
c1.display();
c1.accept();
c2.accept();
c1.display();
c2.display();
c3=c1+c2;
c3.display();
c3=c1*c2;
c3.display();
}
```

```
#include<iostream>
using namespace std;


class complex
{
	float real,imag;
	public:
	complex()
	{
	real = 0;
	imag=0;
	}
	//void accept();
	//void display();
	complex operator+(complex); //member function
	friend complex operator*(complex,complex); //friend function
	friend istream&operator>>(istream&,complex&);
	friend ostream&operator<<(ostream&,complex&);
};


//void complex :: accept()
//{
//	cout << "Enter real no : ";
//	cin >> real;
//	cout << "Enter imaginary no : ";
//	cin >> imag;
//}


//void complex :: display()
//{
//	cout << "Complex number is : " << real << " + " << imag <<"i"<<"\n";
//}
```

```
complex complex::operator+(complex c) //ret type classname::operator op(argument)
{
	complex temp;
	temp.real=real+c.real;
	temp.imag=imag+c.imag;
	return temp;
}

complex operator*(complex c, complex d)
{
	complex temp;
	temp.real=c.real*d.real - c.imag*d.imag;
	temp.imag=c.real*d.imag + c.imag*d.real;
	return temp;
}

istream&operator>>(istream&in,complex&obj)
{
	cout<<"Enter real part: ";
	in>>obj.real;
	cout<<"Rnter imaginary part: ";
	in>>obj.imag;
	return in;
}

ostream&operator<<(ostream&out,complex&obj)
{
	out<<obj.real<<"+"<<obj.imag<<"i";
}

int main()
{
	complex c1,c2,c3;
	cout<<"Enter complex no: ";
	cin>>c1;
	cout<<c1;
	case 1:
	c3=c1+c2;
	cout<<"Addition of two numbers is :"
	cout<<c3;
	case 2:
	c3=c1*c2;
```

```
        cout<<"Multiplication of two numbers is :"
        cout<<c3;
}
```