

ASSIGNMENT NO.1

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```
#include <iostream>
using namespace std;
class complex{
public:
    int real;
    int imaginary;

    complex()
    {
        real=0;
        imaginary=0;
        cout<<"/n"<<real<<"+"<<imaginary<<"i"<<endl;
    }

    complex operator+(complex b)
    {
        complex c;
        c.real=real+b.real;
        c.imaginary=imaginary+b.imaginary;
        cout<<"Addition is:"<<c.real<<"+"<<c.imaginary<<"i";
        return c;
    }

    complex operator*(complex b)
    {
        complex d;
        d.real=(real*b.real)-(imaginary*b.imaginary);
        d.imaginary=(real*b.imaginary)+(imaginary*b.real);
        cout<<"Multiplication is: "<<d.real<<"+"<<d.imaginary<<"i";
        return d;
    }

    friend ostream &operator<<(ostream &output,complex &m);
    friend istream &operator>>(istream &input,complex &m);
};

ostream &operator<<(ostream &output ,complex &m){
    output<<"\nComplex number is "<<m.real<<"+"<<m.imaginary<<"i"<<endl;
    return output;
}

istream &operator>>(istream &input ,complex &m){
    input>>m.real>>m.imaginary;
```

```
        return input;
    }

    int main() {
        complex a;
        cout<<"Enter first complex no. :";
        cin>>a;
        cout<<"Enter second complex no. :";
        complex b;
        cin>>b;
        cout<<a;
        cout<<b;
        complex c=a+b;
        complex d=a*b;
        return 0;

    }
```