#include<iostream>

using namespace std;

class complex

{

float x;

float y;

public:

complex()

{

x=0;

y=0;

}

complex operator+(complex);

complex operator\*(complex);

friend istream &operator >>(istream &input,complex &t)

{

cout<<"Enter the real part";

input>>t.x;

cout<<"Enter the imaginary part";

input>>t.y;

}

friend ostream &operator <<(ostream &output,complex &t)

{

output<<t.x<<"+"<<t.y<<"i\n";

}};

complex complex::operator+(complex c)

{

complex temp;

temp.x=x+c.x;

temp.y=y+c.y;

return(temp);

}

complex complex::operator\*(complex c)

{

complex temp2;

temp2.x=(x\*c.x)-(y\*c.y);

temp2.y=(y\*c.x)+(x\*c.y);

return (temp2);

}

int main()

{

complex c1,c2,c3,c4;

cout<<"Default constructor value=\n";

cout<<c1;

cout<<"\nEnter the 1st number\n";

cin>>c1;

cout<<"\nEnter the 2nd number\n";

cin>>c2;

c3=c1+c2;

c4=c1\*c2;

cout<<"\nThe first number is ";

cout<<c1;

cout<<"\nThe second number is ";

cout<<c2;

cout<<"\nThe addition is ";

cout<<c3;

cout<<"\nThe multiplication is ";

cout<<c4;

return 0;

}

**/\*Output:-**

Default constructor value=

0+0i

Enter the 1st number

Enter the real part 2

Enter the imaginary par t4

Enter the 2nd number

Enter the real part 4

Enter the imaginary part 8

The first number is 2+4i

The second number is 4+8i

The addition is 6+12i

The multiplication is -24+32i