Program – 3.1

AIM: Write C++ program to overload Unary and Binary operator in member function.

PROGRAM:

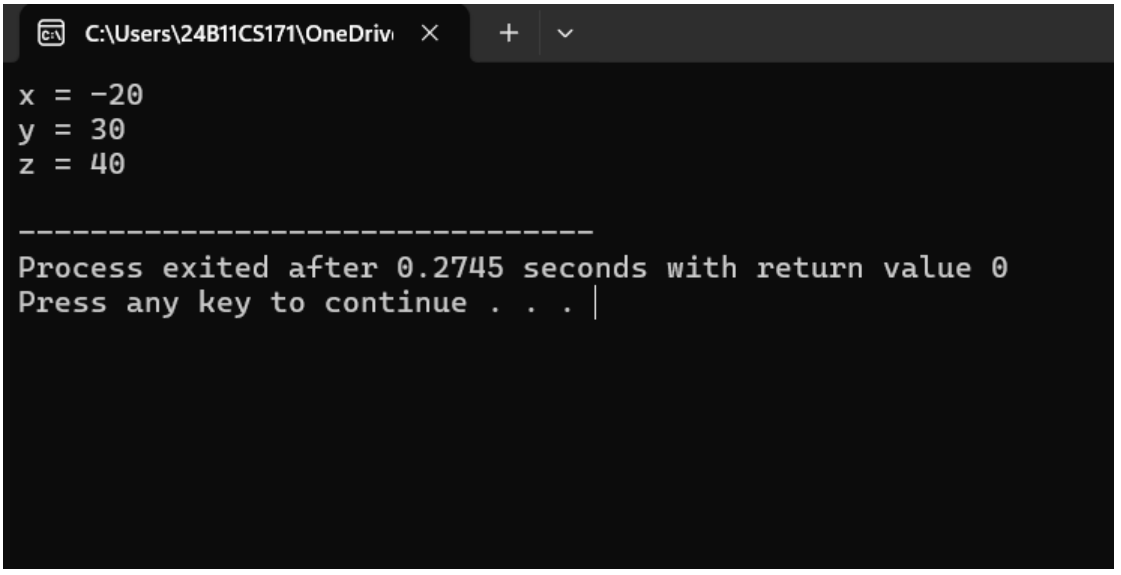
```
#include<iostream>
using namespace std;
class unary
{
        int x,y,z;

        public:
                 void get()
                {
                        x=20;
                        y=-30;
                        z=-40;
                }
                void show()
                {
                        cout<<"x="<<x<<endl;
                        cout<<"y="<<y<<endl;
                        cout<<"z="<<z;
                }
                void operator -()
        {
                x=-x;
                y=-y;
                z=-z;
```

```
        }
};
int main()
{
        unary u;

        u.get();
        -u;
        u.show();
        return 0;
}
```

OUTPUT:



AIM: Write C++ program to overload Unary and Binary operator in member function.

PROGRAM:

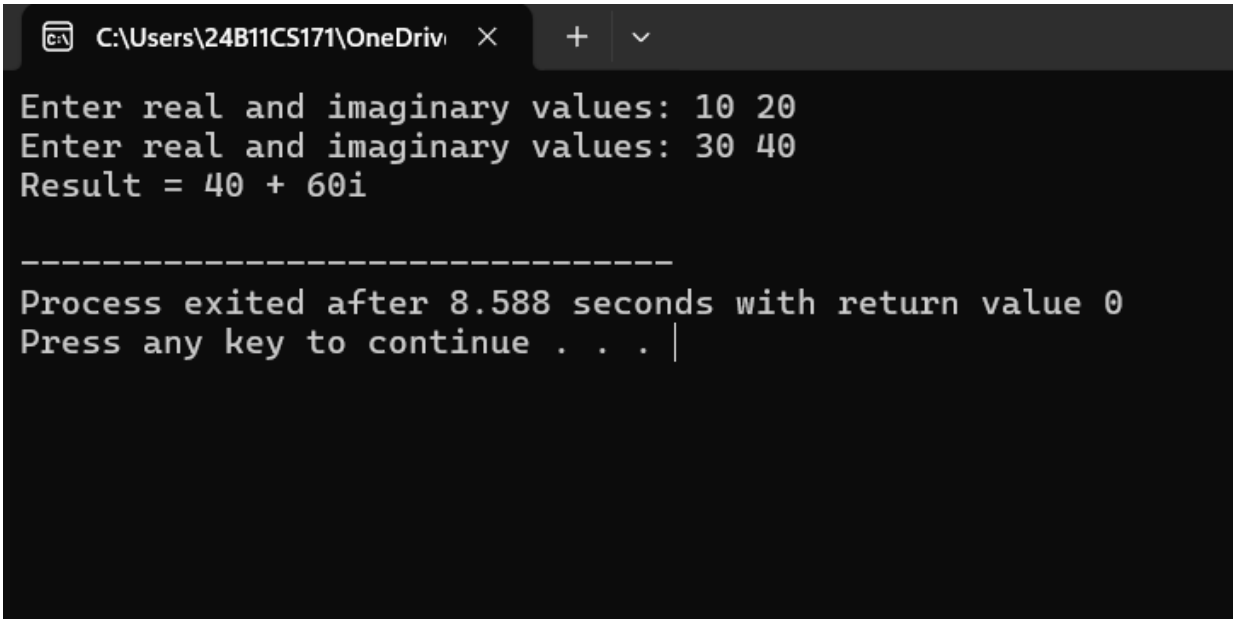
```
#include<iostream>
using namespace std;
class complex
{
        int real,imag;

        public:
                void data()
                {
                        cout<<"enter real,imag values";
                   cin>>real>>imag;
                }
               void operator+(complex c2)
                {
                        cout<<real+c2.real<<"+"<<imag+c2.imag<<"i";
                }
};
int main()
{
        complex c1,c2;

        c1.data();
        c2.data();
        c1+c2;

        return 0;
        }
```

OUTPUT:


C:\Users\24B11CS171\OneDriv
Enter real and imaginary values: 10 20
Enter real and imaginary values: 30 40
Result = 40 + 60i

Process exited after 8.588 seconds with return value 0
Press any key to continue . . .

Program – 3.2

AIM: Write C++ program to overload Unary and Binary operators in friend function.

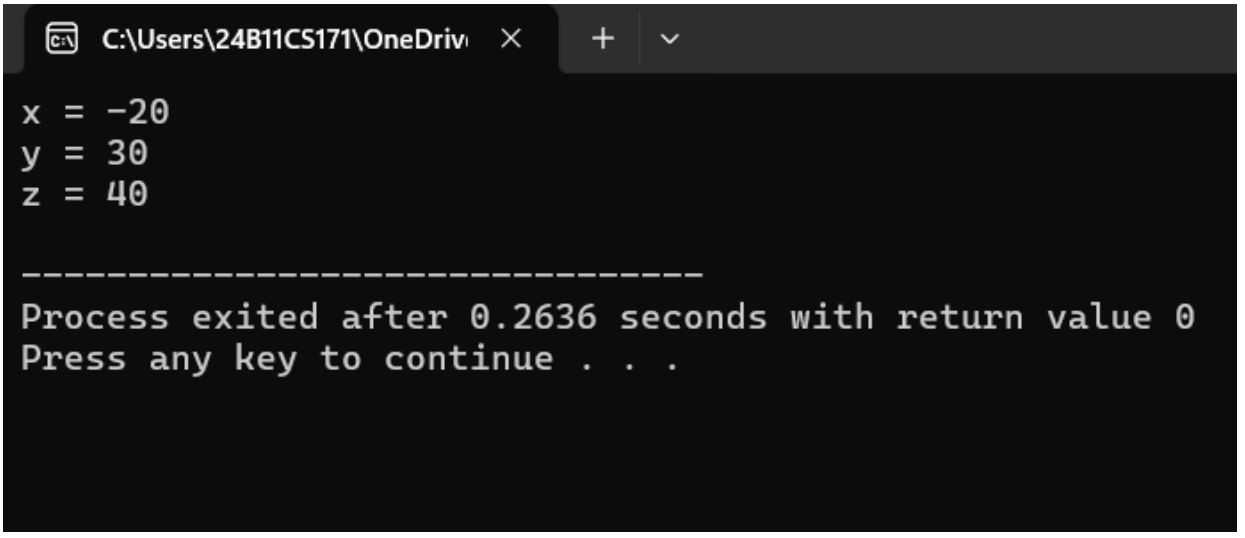
PROGRAM:

```
#include<iostream>
using namespace std;
class unary
{
        int x,y,z;

        public:
                void get()
                {
                        x=20;
                        y=-30;
                        z=-40;
                }
                 void show()
                {
                        cout<<"x="<<x<<endl;
                        cout<<"y="<<y<<endl;
                        cout<<"z="<<z;
                }
friend void operator -(unary &u);
};
void operator -(unary &u)
        {
                u.x=-u.x;
```

```
            u.y=-u.y;
            u.z=-u.z;
        }
int main()
{
        unary u;
        u.get();
        -u;
        u.show();
        return 0;
}
```

OUTPUT:



AIM: Write C++ program to overload Unary and Binary operators in friend function.

PROGRAM:

```
#include<iostream>
using namespace std;
class complex
{
        int real,imag;

        public:
            void data()
            {
                    cout<<"enter real,imag values";
               cin>>real>>imag;
            }
             friend void operator +(complex &c1,complex
            &c2);

};
void operator +(complex &c1,complex &c2)
            {
                    cout<<c1.real+c2.real<<"+"<<c1.imag+c2.imag<<"i";
            }
int main()
{
        complex c1,c2;
        c1.data();
        c2.data();
        c1+c2;
```

```
return 0;
}
```

OUTPUT: