2)Write an operator overloading program to add two complex numbers using friend function.

//using friend functions to implement operator overloading

#include<iostream>

using namespace std;

class cmplex

{

double real,imag;

public:

cmplex(){real=imag=1;}

cmplex(double r1,double i1){real=r1;imag=i1;}

friend cmplex operator+(cmplex c1,cmplex c2);

friend cmplex operator-(cmplex c1,cmplex c2);

void disp()

{

cout<<real<<" + ("<<imag<<")i"<<endl;

}

};

cmplex operator+(cmplex c1,cmplex c2)

{

cmplex temp;

temp.real=c1.real+c2.real;

temp.imag=c1.imag+c2.imag;

return temp;

}

cmplex operator-(cmplex c1,cmplex c2)

{

cmplex temp;

temp.real=c1.real-c2.real;

temp.imag=c1.imag-c2.imag;

return temp;

}

int main()

{

cmplex c1(3,4),c2(5,6);

cmplex c3,c4;

c3=c1+c2;

c4=c1-c2;

c1.disp();

c2.disp();

c3.disp();

c4.disp();

return 0;

}

OUTPUT:

