**Experiment 7**

C++ program to implement complex number class

**ALGORITHM**

Step 1: Start

Step 2: Declare and define class“COMPLES” withpublic functions “get” which reads the real and imaginary parts, “display” which prints the complex number and “add” which calculates additions of the complex numbers.

Step 3: Read the 1st and 2nd Complex Number as real and imaginary part.

Step 4: call “get” function.

Step 5:call “display” function to display the complex numbers.

Step 6: call “add” function to add the Complex Numbers.

Step 7: Print the Resultant Complex Number.

Step 8: Stop

**Program**

//addition two complex number

#include<iostream>

using namespace std;

class COMPLEX //create class of name complex

{

int re,im;

public:

void get() //function to read the input

{

cin>>re>>im;

}

void display() //function to display output

{

cout<<re<<"+"<<im<<"i";

}

void add(COMPLEX c1,COMPLEX c2) //function to add two numbers

{

re=c1.re+c2.re;

im=c1.im+c2.im;

}

};//complex

int main()

{

COMPLEX c1,c2,c3; //instantiation of objects

//input complex numbers

cout<<"\nenter 1st complex no. as real and imaginary part:";

c1.get();

cout<<"\nenter 2nd complex no. as real and imaginary part:";

c2.get();

cout<<"\n\n the 1st complex no is:";

c1.display();

cout<<"\n\n the 2nd complex no is:";

c2.display();

c3.add(c1,c2);//add complex numbers

cout<<"\n\n the resultant complex no is:";

c3.display();

return 0;

}

**Sample input output**

