

OBJECT ORIENTED PROGRAMMING LAB



LAB TASK 9

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Submitted to

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```

#include<iostream>
using namespace std;
class Rectangle{
private:    //class member
    float length;
    float width;
public:    //class function
    void setlength(float );
    void setwidth(float);
    float parameter();
    float Area();
    void show();
    int Samearea(Rectangle L1,Rectangle L2){           //taking class object as parameter
    if (L1.Area()==L2.Area())                        //check area of both rectangle
        cout<< "Result is " <<1;                  //if 1 then both are equal
    else
        cout<< "Result is " <<0;                    //if 0 not equal
    }
};

void Rectangle::setlength(float l){length=l;}        //getting length
void Rectangle::setwidth(float w){width=w;}         //getting width
float Rectangle::parameter(){return 2*(length*width);}
float Rectangle::Area(){return (length*width);}
void Rectangle::show(){                             //displaying all value
    cout<<"Length\t"<<length<<endl;
    cout<<"Width\t"<<width<<endl;
    cout<<"Parameter of rectangle\t"<<parameter()<<endl;
    cout<<"Area of Rectangle\t"<<Area()<<endl;
}

```

```

int main(){
    Rectangle L1,L2,L3;    //two objects for rectangle and third for comparing
    L1.setlength(5);
    L1.setwidth(2.3);
    L1.parameter();
    L1.Area();
    L1.show();
    L2.setlength(5);
    L2.setwidth(18.9);
    L2.parameter();
    L2.Area();
    L2.show();
    L3.Samearea(L1,L2);
}

```

```

Length 5
Width 2.3
Parameter of rectangle 23
Area of Rectangle 11.5
Length 5
Width 18.9
Parameter of rectangle 189
Area of Rectangle 94.5
Result is 0
Process returned 0 (0x0)   execution time : 0.067 s

```

Q 2:

```

#include<iostream>
using namespace std;
class Complex{
private:    //set data
    float a,b;
public:
    void setdata(float a,float b){

        this->a=a;    //refers to this class member
        this->b=b;

    }
    void display(){    //displaying data before adding
        cout<<"The complex number is "<<a<<" + "<<b<<"i"<<endl;
    }
    void setdataaftersum(Complex c1,Complex c2)    //create a class type object function parameters
    {

        a=c1.a+c2.a;    //getting both objects a value and then add
        b=c1.b+c2.b;

    }
    void printNumber(){    //displaying sum
        cout<<"sum of complex number is "<<a<<" + "<<b<<"i"<<endl;
    }
};

int main(){
    Complex c1,c2,c3;
    c1.setdata(1,2);
    c1.display();
    c2.setdata(3,4);
    c2.display();
    c3.setdataaftersum(c1,c2);
    c3.printNumber();}

```

```

"E:\second semester\oop lab\lbtask9\q2.exe"
The complex number is 1 + 2i
The complex number is 3 + 4i
sum of complex number is 4 + 6i

```